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MONTAGU'S

ORNITHOLOGICAL DICTIONARY.

"THE GRADUAL INCREASE OF KNOWLEDGE IN THIS AS WELL AS OTHER BRANCHES OF ZOOLOGY, AND THE LABOURS OF SEVERAL RECENT NATURALISTS, AMONG WHOM STAND PROMINENT THE NAMES OF TEMMINCK AND MONTAGU, HAVE ESSENTIALLY CONTRIBUTED TO THE DEVELOPMENT OF THESE VARIOUS AND UNEXPECTED CHANGES OF PLUMAGE, AND CLEARED UP MANY OF THE DOUBTS AND DIFFICULTIES, IN WHICH THE HISTORY OF SEVERAL SPECIES HAD BEEN SO LONG INVOLVED."—*Selby.*

"BUT THERE WERE OTHER LABOURERS WHOSE EFFORTS ASSUMED A MORE SCIENTIFIC ASPECT. THE LATE GEO. MONTAGU, ESQ. CULTIVATED WITH ZEAL MANY DEPARTMENTS OF BRITISH ZOOLOGY. IT IS BUT A JUST TRIBUTE TO THIS NATURALIST TO STATE THAT, IN HIS WRITINGS, HE APPEARS PROGRESSIVELY TO HAVE BEEN FORSAKING THE ARTIFICIAL METHOD, AND ACQUIRING A KEENER RELISH FOR PHYSIOLOGICAL RESEARCHES; THE TRUTH WAS AT ALL TIMES EAGERLY SOUGHT AFTER."—*Fleming.*

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ORNITHOLOGICAL

DICTIONARY

OF

BRITISH BIRDS.

BY COLONEL G. MONTAGU, F.L.S.

SECOND EDITION.

WITH

A PLAN OF STUDY, AND MANY NEW ARTICLES AND ORIGINAL OBSERVATIONS.

BY JAMES RENNIE, A.M., A.L.S.

PROFESSOR OF NATURAL HISTORY, KING'S COLLEGE, LONDON; AUTHOR OF "INSECT ARCHITECTURE," "INSECT TRANSFORMATIONS," ARCHITECTURE OF BIRDS, &c.

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INTRODUCTION.

THIS EDITION will be found to differ from the first in the following particulars.

I. It having been thought useful to give, in the body of the Dictionary, an explanation of the terms used by those who have written upon Birds, and also some account of their anatomical structure and physiology, I have, in accordance with this, distributed Colonel Montagu's original Introduction in the order of the alphabet, under the articles EGG, INCUBATION, MIGRATION, &c.; and other interesting observations under CUCKOO, GOLD-CRESTED WREN, &c., because they directly related to these birds.

II. To supply the place of the original Introduction, the matter of which has been thus transferred to what was deemed a more logical station, I have drawn up a Plan of Study, according to the method I have pursued in my own researches,—namely, first observing a fact or circumstance in the fields, then endeavouring to discover the design it was intended to serve by the great Creator, and subsequently examining the statements to be met with in books, in order to compare these with what I had actually observed. This will be seen to differ from the current methods of study, by giving importance to single facts or circumstances personally observed, and traced to their Providential causes; while by the other method these are represented as of no intrinsic use, their value being only relative, as connected with some

theory or system, with which of course the student must be acquainted, before he can appreciate the worth of any personal observations he may chance to make. On my plan, any person, with a little care, may become a tolerably good naturalist, the first walk he takes in the fields, without much knowledge of books: on the other, much previous study is indispensable, while, as I shall endeavour to show, this will often be labour thrown away, as it is usually more apt to mislead than to assist. On my plan, the student is a free agent; on the other, he is chained to the ranks of the monopolists of knowledge.

III. As systems and classifications have so long usurped almost the exclusive attention of those who have attended to the objects of nature, it appeared necessary to give the student some notion of the proper use of a system, in order to prevent his falling into the error of looking at a system in a false light. I have therefore thought it important to speak plainly and strongly upon this subject.

IV. In giving an estimate of the Linnæan system, I have endeavoured to place the merits of its distinguished author in a just point of view; while I have quoted, to fortify my own opinion, the sentiments of several able naturalists condemnatory of his methods, or rather of the use to which these have been preposterously turned by his disciples.

V. Among the various systems claiming to be natural, I have chiefly directed the attention of the reader to the doctrine of *Types*, and the *Quinary* arrangement founded upon it; because, though it is not exclusively English, being adopted by Denis, Scheiffermuller, and other continental writers—the disciples of Mr. MacLeay speak of themselves as constituting the modern English school. I have judged it my imperative duty to object, in the most explicit manner, to the doctrines and the language of this school; but while I have considered no terms too strong in urging my objections to the Quinary or Typical system, I have given all due credit to the upright intentions of its author and his disciples, some of whom I have the honour of ranking amongst my friends, and to whom I shall be sorry if the remarks I have

judged it my indispensable duty to make, should give pain. The offer to print any reply to my arguments which might be sent me, exculpates me, I conceive, from all charges of a personal nature; and it would grieve me much, if my dislike to their doctrines and language, has, in any instance, betrayed me to infringe upon the courtesy and decorum which ought uniformly to characterise such discussions. To enter into any compromise with error, would be unpardonable weakness and delinquency; but to endeavour, by contempt or abuse, to hurt the feelings of the person judged to be in error, would exhibit the character of a bully or a ruffian.

VI. The classification of Naturalists according to the character of their works, which closes this introduction, is an imperfect attempt to direct the student in his choice of books, according to his peculiar wants and wishes.

VII. In the body of the work, I have made very considerable alterations in the arrangement. The author, in the first edition, seems to have aimed at giving, as far as the letters of the alphabet would permit, all the species of a genus together; hence under DUCK, we had DUCK-EIDER, DUCK-KING; and under GULL, we had GULL-HERRING, GULL-LAUGHING, &c., an unnecessary awkwardness, attended with no apparent advantage. The arrangement of these in a straight-forward manner, has cost no little trouble. In the article WARBLER, again, this principle led the author to include birds, which are not now arranged with Warblers, such as the HEDGE SPARROW; and the placing of two birds together because they resembled each other, with the distinction only of *greater* and *lesser*, served to propagate confusion. I have, therefore, adopted for the PETTY CHAPS-GREATER, the continental name FAUVETTE; for the PETTY CHAPS-LESSER, the provincial name CHIFF-CHAFF; and for the WHITE THROAT-LESSER, the continental name, BABILLARD. In many other instances, I have adopted the provincial name in preference to one of book origin, the latter often consisting of several words, and being therefore awkward in a Dictionary. Any supposed inconvenience arising from these changes, is obviated by all the known names being inserted in their due order in the alphabet, and also under

the lists of synonimes; and still further to obviate any inconvenience in reference, I have added an alphabetical Index of the generic and specific names adopted in the body of the work.

VIII. Recently, it has been the chief business of those who call themselves Naturalists, to alter and invent names, sometimes with, but often with no advantage. Having small inclination to employ myself in such task-work, I have made extremely few alterations in this respect, and I have only changed five names, which served to propagate error or absurdity:—such as ANORTHURA, for *Troglodytes;* FRINGILLA SPIZA, for *F. cœlebs;* MOTACILLA LOTOR, for *M. alba;* CORVUS PREDATORIUS, for *C. frugilegus;* and NYCTICHELIDON, for *Caprimulgus.* To say that these erroneous names are only distinctive appellations, implying no more error than the surname of White to a negro, or of King to a scavenger, is at once to confess the imperfection of what is called scientific nomenclature.

IX. The new matter, which is marked by one * before and another * after it, consists of communications made by Colonel Montagu himself to the Linnæan Transactions, &c., always given in the first person plural; of numerous facts and details from eminent living naturalists, both British and Foreign; of several which have fallen under my own observation, always given in the first person singular; and of new characters of genera, chiefly from Temminck, it being considered an improvement to introduce these instead of Colonel Montagu's, many of which are somewhat obsolete.

PLAN OF STUDY.

"THAT the principal aim of a Naturalist ought to be to multiply observations," is laid down as a leading rule by M. Levaillant, one of the very few who have preferred reading the page of Nature in the woods and fields, to the inferior study of cabinets and books; and hence he was stigmatized, as another enthusiastic and genuine observer, Audubon, is at present, by cabinet naturalists, as a romancer unworthy of credit. "Theories," adds M. Levaillant, "are more easy and more brilliant than observations; but it is by observation alone that science can be enriched, while a single fact is frequently sufficient to demolish a system."* To all this I most cordially subscribe; while I recommend whoever feels little interest in field study, to read the works of Audubon, Knapp, Levaillant, Ray, Reaumur, Wilson, and White, from whom if he catch no portion of the ardour which inspired them in their beautiful researches, he may conclude that he is too cold and too callous ever to become a Naturalist.

The young Naturalist indeed will find it not only more easy and delightful, but greatly more improving, to take his first lessons in the fields, by observing the animated scene which creation everywhere displays, when

> ———Spring
> Comes forth her work of gladness to contrive
> With all her reckless birds upon the wing,†

than to sit down to study the descriptions given in books, or

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* Histoire Naturelle des Peroquets, i. 20. One of the few valuable works on Natural History, which I found in the Library of the Paris Museum, that is not in our Library of the British Museum; both, I am sorry to say, being equally deficient in this department.

† Childe Harold, Canto iii. 30.

to fill his memory with the terms of a system. It is, indeed, greatly to be regretted that the study of THINGS is so much thrown into the back ground, by the almost exclusive attention now bestowed upon WORDS. These ought to go hand in hand, for nothing can be more preposterous than compelling a boy to store up a number of words in his memory which he does not, and cannot understand; while, on the other hand, he cannot be supposed to retain a distinct or lasting recollection of things and facts without names and words,—the only sort of pegs upon which they can be permanently hung. Upon this principle it is surprising at how early an age children can be instructed in the most interesting parts of Natural History; a subject beautifully touched by Coleridge in his verses to the nightingale—

> ———"That strain again!
> Full fain it would delay me! My dear babe
> Who, capable of no articulate sound
> Mars all things with his imitative lisp,
> How he would place his hand beside his ear,
> His little hand, the small fore finger up,
> And bid us listen! And I deem it wise
> To make him nature's playmate—
> ——— And if that Heaven
> Should give me life, his childhood shall grow up
> Familiar with these songs, that with the night
> He may associate joy." *

Besides the pleasure which always results from the attention of youth to natural objects, a habit of distinguishing between things of different, or of similar forms, colours, and characters, is acquired, and may be made the foundation of an accuracy of judging, of high value as an intellectual endowment. It is probable that it may be exceedingly difficult for persons arrived at manhood to acquire this power of discriminating objects, whose general similarity of appearance deceives a common observer into a belief of their identity; though a little care on the part of a parent or a teacher, will render it comparatively easy. The training up young people in this mode of observation, is of much more importance to them, than exercising their memory exclusively upon books, which is the usual routine procedure.

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* Sibylline leaves, 209.

By the latter method, the memory may, no doubt, be highly improved; but it is, almost without exception, at the expense of the judgment, which, by the method here recommended, is the chief faculty exercised. The memory of children is in many cases too ready, and it might be more advantageous to check than to foster it, like a hot-house plant, into premature growth, which is certain to be followed by premature decay; while, at the same time, every chance of originality and independence of mind must be utterly extinguished. It was remarked by Aristotle, that precocious prizers, at the Olympic games, were rarely afterwards distinguished, and every day's experience proves the correctness of his observation. It would not, indeed, be difficult to demonstrate, that the mode here recommended of discriminating the objects of Natural History, is a more efficient instrument for exercising the judgment, than even mathematics; at least when they are taught on the plan so frequently followed in our schools and Universities, of merely committing to memory, or, what is the same thing, conning over, the demonstrations of Euclid, or Sir Isaac Newton; instead, as is done on the continent, of pupils inventing the diagram, and working out the demonstration of a proposition, as much as possible, by their own efforts. The consequence of this leading-string system has been, that it has nearly extinguished the mathematical reputation of Britain, formerly so high; it being as impossible to make a Newton by parroting the Principia, as to make a Milton by committing to memory the Paradise Lost. In the same way in Natural History; the trusting to books alone, which, in so many cases, are the compilations of men altogether ignorant of the subject, has virtually placed the authority of a few names (Linnæus for example, and some of his disciples) far above nature itself, and has thereby checked the progress of original and independent observation. We may well say with Lactantius, that "they make shipwreck of their wisdom who thus adopt, without judgment, the opinions of their ancestors, and allow themselves to be led by others like a flock of sheep."*

In books (whose principal use I shall presently advert to) we can only obtain knowledge at second hand, and this, like

* Sapientiam sibi adimunt, qui sine ullo judicio inventa majorum probant, et ab aliis pecudum more ducuntur.—Lactantius, *Divin. Institut.* ii. 7.

a story circulated among village gossips, is more apt to gain in falsehood than in truth, as it passes from one to another; but, in field study, we go at once to the fountain-head, and obtain our facts pure and unalloyed by the theories and opinions of previous observers. By pursuing such a method, three of the chief prejudices which Lord Bacon has pointed out as sources of human error are avoided, and the only danger is from what he quaintly denominates prejudices of the den, (*Idola specus*,*) meaning thereby the imperfections of an individual's intellect, whether natural to him or produced by education. Here it is that the utility of books becomes obvious. You witness, in a field excursion, a certain incident or peculiarity of action in some animal, which strikes you as worthy of being chronicled in your note book. You pay a visit, for example, to the nest of a dabchick or grebe, (*Podiceps*,) which you had discovered some days before among reeds at the edge of a pond, and are surprised to find that the eggs have disappeared; but much more so, on taking up some of the rude materials of the nest, to see the eggs snugly concealed beneath. The question immediately arises—did the mother bird thus cover the eggs herself, and if so, for what purpose was it done? If you be not too impatient (a state of mind exceedingly adverse to accuracy and originality) you will endeavour to ascertain whether the covering of the eggs was peculiar to this individual, or common to the species, by repeated observation as frequently as opportunity offers; or, if patience fail you for this, such books as you have access to may be consulted. Look into Linnæus, and all you find is, that this bird "builds a floating nest of grass and reeds;"† Latham says "the nest is made of water plants among the reeds, and close to the surface of the water—floating independent."‡ Willughby, Ray, and Brisson, say not a word about the nest. Fleming says the "nest is in marshes of aquatic plants, and made so as to float."§ "They breed," says Goldsmith, "among reeds and flags, in a floating nest, kept steady by the weeds and margin."‖ They "construct their nest," says Griffith, evidently copying Temminck, "with rushes, &c.,

* See Bacon's Novum Organum, i. 41, &c.; and De Augmentis Scientiarum, iv.

† Turton's Linn. i. 356. ‡ General History of Birds, x. 22—24.

§ Brit. Animals, page 131. ‖ Animated Nature, ii. 286.

interlaced, which they attach to the stems of reeds, resting it on their broken tops, or suffering it to float."* "Nest large," according to Jennings, "made of aquatic plants not attached to any thing, but floats among the reeds and flags penetrated by water."† Belon, who is followed by Gesner, Aldrovand, Jonston, and M. Drapiez, says, "it nestles near the ground upon some turfy clump in a marsh, difficult of access."‡ "On our large pools," says Buffon, "they build with reeds and rushes interwoven, and the nest is half dipped in the water, though not entirely afloat, as Linnæus asserts, but shut and attached to the reeds."§ Wood subsequently adds in a note, ‖ "they construct a floating nest of reeds." "They build their nests," says Hill, "floating and loose among the flags," and "being altogether unconnected with the reeds among which it floats, it sometimes happens that it is blown from among them into the open lake. In this situation the owner, like a skilful pilot, it is said, steers the nest into a safe harbour, by passing her feet through it." ¶

In all these various notices of the nest in question, by the well-known naturalists thus consulted, there occurs no mention of any covering of the eggs, though the inquiry has brought under notice some other curious particulars, which, no doubt, a young and ardent observer will be anxious to verify on the nest itself, from which his book research originated. Some of the authors, it has been seen, assert that the nest floats on water, nay, that it is purposely built to float by the mother bird; while others make no mention of its floating, and some expressly deny it. In a supposed case like this, it may, perhaps, be deemed premature for me to decide; but the nests which have fallen under my observation agree with those originally described by Belon,** in being built on raised clumps in marshes, or at least so supported by water plants as not to be intended to float. That in consequence of floods these nests may, by accident, have been found

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* Cuvier's Animal Kingdom, viii. 629; and Temminck, Man. d'Orn. ii. 719.

† Ornithologia, p. 189.

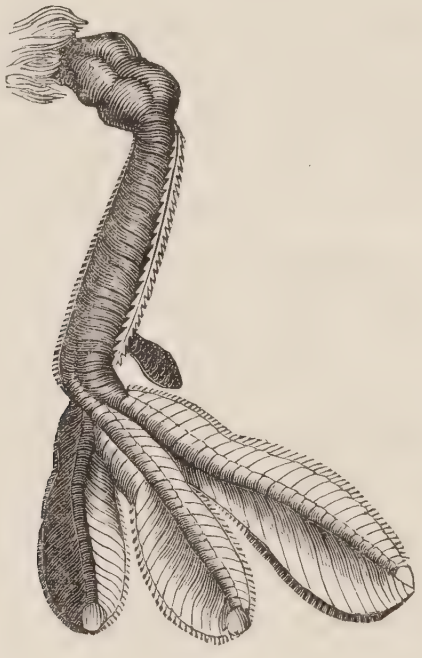
‡ Aldrovand. Ornith. iii. 106. Drapiez, Resumé d'Ornithologie, 18mo. Paris, 1829.

§ Wood's Buffon, xix. 226. ‖ Page 230.

¶ New Syst. of Nat. Hist. ii. 477, 8vo.; Edin. 1792.

** Oyseaux, fol. Paris, 1555, p. 177, 178.

floating, it would be wrong to deny, though there can be little doubt that Linnæus, who was much too credulous of wonders, magnified a chance occurrence into a general rule. The story of the mother bird navigating her nest when it has been carried away by a flood, is altogether incredible; for the nest is not only constructed of a bedding of reeds, rushes, and other water plants, more than a foot in thickness; but the feet of the bird are so broad and clumsy, as will be seen by the annexed cut, that they could not be thrust through it without entirely destroying its texture.



Pennant, however, seems to believe this nonsense, for he adds to the account—"in these circumstances the Halcyon's nest, its floating house, *fluctivaga domus*, as Statius* expresses it, may, in some measure, be vindicated."† The same author also is more particular about the floating of the nest, which he says is built near "banks, in the water; but without any fastening, so that it rises and falls as that does. To make its nest, it collects an amazing quantity of grass, water-plants, &c.;" and he adds, "it should seem wonderful how they are hatched, as the water rises through the nest and keeps them wet; but the natural warmth of the bird bringing on a fermentation in the vegetables, which are full a foot thick, makes a hot-bed fit for the purpose."‡ If our

* Statius, Thebaid, ix. 360. † Brit. Zool. ii. 395.
‡ Ibid, page 399.

young student, upon reading this very questionable doctrine, turn to this Dictionary,* he will learn that Colonel Montagu uniformly found the nests cold, and that taking into account the chemical principles of fermentation, it was impossible they could be warm.

But Pennant also mentions a circumstance of much more interest in reference to the original inquiry, when he says that this bird "lays five or six white eggs, and *always covers them when it quits the nest*,"—the very point to ascertain which the research was begun. With this authority, supported as it is by Montagu, most students might rest satisfied, but the ardent naturalist never arrives at any conclusion like this, without bringing all the facts within his knowledge to bear upon it, in order to elucidate connecting causes and consequences; for the fact being ascertained of the mother bird covering her eggs, it becomes interesting to inquire why she does this.

It is admitted by all the naturalists already quoted, that the nest in question is built on moist ground, if not actually touching the water, and that part at least of the materials consist of moist water plants. Now it is indispensable to hatching, that the eggs be kept at a high temperature, and not be suffered for a moment to cool. The natural heat of the bird itself is sufficient for this purpose, without the heat of fermentation, erroneously supposed by Pennant; but if she quits them for a moment to go in pursuit of food, or to withdraw the attention of an intruding water spaniel, or a prying naturalist, their near vicinity to moist plants or to water, would certainly prove fatal to the embryo chicks. In order then to prevent her brood from being destroyed by cold, the careful bird covers the eggs with a quantity of dry hay, to keep them warm till her return.

By keeping this interesting fact in his mind, our young naturalist may subsequently find that other birds employ the same or similar devices. The carrion-crow (*Corvus corone*) for example, who lines her nest with wool and rabbits' fur, always covers her eggs with a quantity of this before leaving her nest, no doubt for the same reason that the dabchick employs hay. Again, several birds of very different habits, such as the wood-wren (*Sylvia sibilatrix*) and the hay bird, (*Sylvia trochilus*,) construct a permanent arch of moss and dried grass over their nests, leaving a nar-

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* Page 127.

row entrance in the side. Having recently had occasion to investigate the structure of various nests, with some minuteness, I have been led to adopt the opinion, that the arched coping or dome, so remarkable in several small birds, for ingenious and beautiful workmanship, is designed to preserve their animal heat from being dissipated during the process of incubation; an opinion which appears to be corroborated by the fact of our native birds that thus cover in their nests at the top, being all very small. Among these, besides the wood-wren and the hay-bird, are the common wren, the chiff-chaff, (*Sylvia hipolais,*) the gold-crested wren, the bottle-tit, (*Parus caudatus*, Ray,) and the dipper, (*Cinclus aquaticus*, Bechstein.) There are other birds, no doubt, little larger than these, such as the blackcap and the babillard, (*Curruca garrula*, Brisson,) which do not build domed nests; but it is worthy of remark, that the latter usually lay much fewer eggs; the babillard seldom more than four, and the blackcap four or five; while the gold-crested wren lays from seven to ten, the bottle-tit from nine to twelve, and the common wren from eight to (some say) fourteen, and even twenty. It will follow of course, that in order to hatch so large a number, these little birds require all their animal heat to be concentrated and preserved from being dissipated. The dipper, indeed, lays but five or six eggs, and weighs from six to eight times more than any of our other dome builders; but it is to be recollected, that, from its being a water bird, and building near water, it may have more occasion to use "all appliances" to concentrate its heat.* In tropical countries, where the heat is great, such domed nests are very common, and are probably intended to protect the mother birds, while hatching, from the intense heat of a perpendicular sun;† though most naturalists think they are designed to avert the intrusion of snakes,—forgetting that snakes would more naturally run their heads into a nest with a small side entrance, than if it were open above. A circumstance which fell under my observation, corroborative of this remark, I have recorded under the article Hay Bird. Other birds, in warm countries, leave their eggs during the day exposed to the heat of the sun, and only sit upon them during the night or in

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* See a paper on the Contrivances of some Animals to secure Warmth, by J. Rennie, in the Journal of the Royal Institution for May, 1831.

† See Architecture of Birds; Chapter on Dome Builders, page 307.

cloudy weather, when the temperature of the air is not sufficiently high,—a fact which has given origin to the error, that the ostrich (*Struthio camelus*) lays her eggs in the sand and abandons them to chance.

Such is a brief example of the mode of study which I am disposed, from experience, to recommend to those who have begun, or are inclined to begin, the study of birds or any other branch of Natural History. Books are useful and necessary, beyond all question, but no progress can ever be made by trusting to book study. Nothing can more strikingly illustrate the difference between the closet fancies of mere book naturalists, and the actual facts which any body, who will be at the trouble of observing, may verify, than the following passage from the highly lauded article, "Ornithology," in Rees's Cyclopædia. "Birds of the same species," says the author, "collect the same materials, arrange them in the same manner, and make choice of similar situations for fixing the places of their temporary abodes. Wherever they dispose themselves, they always take care to be accommodated with a shelter; and if a natural one does not offer itself, they very ingeniously make a covering of a double row of leaves, down the slope of which the rain trickles, without entering into the little opening of the nest that lies concealed below."

Now I would remark that the author, in asserting that "birds" (meaning birds in general) "take care to be accommodated with a shelter," entirely forgets the numerous families which lay their eggs on the bare ground, and often even leave them exposed the greater part of the day on the sands of the desert, the sea beach, or isolated rocks; but we further learn that "they" (meaning all birds) "make a covering of a double row of leaves;" yet, so far from all birds doing this, I am not acquainted with an individual species that does so. It is impossible that the author could ever have seen any nest in the woods and fields, which would give the least colour to such fancies. The objects themselves, therefore, must be examined, the actions of living animals observed, and the causes of these actions traced; otherwise the details learned from books will only lumber the memory, like words conned from the vocabulary of a foreign language, the grammar and literature of which are unknown. One fact learned from personal observation, is to the student worth a thousand mere book facts; and one research like that just exemplified, based upon personal observa-

tion, is of more value in training the mind to the love of truth, and to the admiration of the beautiful contrivances of Providential wisdom in adapting means for the accomplishment of particular ends, than the mere technical knowledge of all the classed divisions and numerous species of the animal kingdom, so falsely called science.

It has been objected by a clever naturalist, that I have here given *no* "plan of study," and I am referred to Kirby and Spence,* for the model of such a plan; but on looking at this model, I am not inclined to follow it, inasmuch as it is precisely the plan I object to pursuing. The following of such a plan as theirs, could not readily lead to the production of so admirable a work as the first two volumes of their Entomology, the success of which has proved its high excellence; while it is precisely the plan that would lead to their last two volumes, the greater part of which consists of technicalities of small use, many of them inaccurate, that very few will ever read, and fewer still will care to remember.

The present work will, in the point of view alluded to, be of considerable use; for though I am well aware, that neither this nor any other upon so multifarious a subject can be free from mistakes and uncertainty on many points of inquiry, yet such errors as may be discovered, will seldom be found to arise from the ignorant copying of what has been previously copied a hundred times over, by compilers unacquainted with the subject,—a practice which has been the bane and ruin of Natural History. Colonel Montagu, indeed, has been equalled by few and surpassed by none of our British naturalists as an original observer, though Ray, Willughby, and Pennant, were better acquainted with book-learning, and White of Selborne was a more eloquent and pleasing writer; while what is of great importance in the present work, is, that we can always depend on the good faith of the author in stating what he believed, from all the information he could procure, to be genuine facts.

"The following sheets," says Montagu, "have been entirely drawn from our own observations, and compiled from the notes of twenty years' search and attention to the habits of this beautiful part of the creation in most parts of this kingdom. The wood, the mountain, and the barren waste, the craggy rock, the river,

* Intro. iv. 547.

and the lake, are never searched in vain; each have their peculiar inhabitants, that enliven the scene and please the philosophic eye.

> Ten thousand warblers cheer the day, and one
> The live-long night; nor these alone, whose notes
> Nice-finger'd art must emulate in vain;
> But cawing rooks and kites that swim sublime
> In still repeated circles, screaming loud;
> The jay, the pie, and e'en the boding owl,
> That hails the rising moon, have charms for me.—COWPER." *

Recent observations, however, by extending our views, have shown that in several instances our author was led into mistakes. Although I have corrected many of these, it does not follow that all my corrections are themselves correct, for subsequent observation may in the same way prove at least some of them to be wrong, as the youngest naturalist who will pursue the plan I have recommended may perhaps discover, if he examine Nature for himself, and not allow his thoughts to be trammelled by the leading-strings either of the present work or of any other. The specimen of discrepancies which I have given above in the instance of the grebe's nest, proves most strongly indeed that it is unsafe to trust even to what are esteemed the best books and the highest authorities; for most authors occasionally indulge in fancying facts, instead of proving them by observation.

The alphabetical order also of this work will be more convenient for the proposed plan of study, than if it had been arranged according to any particular classification, as the subjects required may be turned to at once, the mind being left free and unfettered by systems, which are so frequently framed on mistaken principles or imaginary theories. But let me be understood: I do not mean to discard systems, I only wish to place them in what appears to me to be their true light, and to guard the young naturalist from the very prevalent and mischievous error, of considering system as the only and exclusive end of study; an error extensively propagated by the variety of system-makers and the indolence or the party-spirit of their disciples; which leads them to think every thing worthless and wrong that does not tally with their classed divisions, or partake of their technical diction.

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* Introduction to First Edit. p. xli.

THE USE OF SYSTEM.

I MAY venture to say the only use of what, in Natural History, is called a system, meaning thereby a methodical classification, is, that it may serve as a frame-work or a cabinet, into the partitions of which many little facts may be stored and dove-tailed, that would otherwise be scattered through the memory at random, at the great hazard of being lost. The advantage of a system of this kind then consists in its preserving such collections of facts, as a cabinet preserves a collection of specimens; and, provided the several facts be not too far separated from their usual associations, it matters little what other qualities the system possess. Simplicity indeed must always be valuable, and a simple system may be likened to a plain unornamented cabinet, where the specimens hold a prominent place and the cabinet itself is almost overlooked; while a complex system may, in the same way, be likened to a cabinet bedizened with grotesque carving and fretwork, the compartments of which are "curiously cut"* and fantastically arranged, consisting indeed chiefly of empty framework, without a useful fact or an interesting specimen on which the mind can rest. To the manufacture of such gew-gaw nursery toys, I confess, I am hostile, because I think it is lowering the dignity of philosophy; and she has no dignity to spare for such a purpose, amidst the numerous humiliations which philosophers daily meet with in attempting to fathom what is unfathomable, and to explain what to man is inexplicable in the works of GOD.

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* *Tailor.* With a trunk sleeve.
Grumio. I confess two sleeves.
Tailor. The sleeves curiously cut.
Petruchio. Ay, there's the villainy.
Grumio. Error i'the bill, Sir; error i'the bill.
Shakesp. Taming of the Shrew.

Let a system however be as complex and fantastic as it may, it can be employed so as not to impede very much the progress of useful study, provided always that it be regarded in its true light as a cabinet, and not as the sole object and end of science. Did the British Museum, or any other collection of specimens, contain only a series of drawers ticketted with names, but empty and barren, there are probably few who would take the trouble of looking at them; and fewer still who would lumber their memory with these ticket names. Were the fact indeed not notorious it would scarcely be credited, that among those who devote their time to the objects of nature, few—very few, ever advance a step beyond this ticket knowledge, or ever dream that it is necessary to go farther. The alphabet of their system is all they study, yet they scruple not to call themselves *naturalists*, and the alphabet of their system, *Natural History;* though they might with equal propriety call the twenty-four letters on a horn book the History of England, and rank the village schoolmaster who teaches it with Hume or Lingard. That some minds may be so constituted as to take pleasure in such nick-nack study, is proved by the analogous pursuits of the collectors of old coins and medals, not for their utility, but solely on account of their rarity, or to perfect a series; yet it would be as preposterous to rank such mere collectors with a man like Niebuhr, who investigated medallic inscriptions in order to elucidate the history of Rome, as it would be to rank a mere systematist with Aristotle, Ray, or John Hunter,—three of the greatest names in philosophic natural history.

"To know the names of things without the things themselves," says Sir William Cornwallis, in his quaint and curious Essayes, "is as unprofitable as a power to repeat the alphabet by a fellow altogether illiterate. Such are the *ejecta* of a pedant, which to make saleable, he imitated the dyer, whose vat working ill, he makes amends by giving the ill colours new names: so this pedant venting his infinity of words and fortifying them with methodical divisions. But the slippery glibnesse of the tongue giveth such a facility to speake, as commonly it runnes without reason and so is as fruitlesse as a messenger without an errande."*

I can well foresee that these views will be ill relished by those

* Essayes, No. 45. 12mo, London, 1631.

who are obstinately wedded to their systems and their classifications; but though I should say to these,—if you like the pursuit by all means go on, yet I cannot in duty recommend it to such as aim at philosophic and extended views of nature. When there was brought to Philip of Macedon a man who could throw millet seed through a needle's eye without ever missing, instead of admiring his dexterity, the king ordered a bushel of millet seed to be given him, that so *useful* an art might not languish for lack of materials. I am disposed to consider mere systematists much in the same light, even at the hazard of being visited by their contempt or their vituperation. To me such will always, I trust, prove harmless.

Assuming the preceding views to be those best calculated for enlarging the mind and for leading the thoughts of an observer through nature up to nature's God, which ought always to be the chief object of a true naturalist, it may be useful to apply them as a test by which to estimate the value of one or two of the leading systems, in so far as they concern birds. In doing this, my sole motive is to point out to the student what may be useful to him, in attending only to sound principles, and in avoiding what appear to me to be unprofitable fancies or pernicious errors. Such is indeed one of the most difficult and dangerous tasks which an author can undertake,—difficult, because it requires very laborious research and careful discrimination to distinguish between the false and the true; and dangerous, because every fancy which is dissipated by facts, every error tried by the touchstone of truth and refuted, is certain to engender a host of enemies—rancorous in proportion to the completeness of defeat—among the framers of systems, or their admirers and disciples; while those who are not thus partizans of a party, are generally swayed by the authority of the greatest name, rather than by the merits of a cause. It would be folly in me to pretend to be free from such prejudices as are incident to human nature; but though I am anxious to study the observations of eminent naturalists, to assist me in seeing what I might otherwise have been ignorant of, or have overlooked, yet I do not feel myself disposed to bend even to the authority of Aristotle, Ray, or any other eminent observer, when I find this opposed by plain facts. The exposure of error is unquestionably the imperative duty of every public writer,

or public teacher, which the fear of creating enemies ought in no case to make him shrink from performing; yet neither is he called upon to court hostility by censuring with asperity or rancour, and far less ought he to raise objections for the paltry purpose of displaying his skill in logic. Such I wish particularly to avoid, while I make the pointing out the right path to the student, and warning him against bye-paths, my leading object. If I err in this, I shall be most grateful to whoever may show me where I have gone wrong; but having no rival system of my own to propose or to support, I trust I may lay fair claim to impartiality. Authority, I claim none; but, on the contrary, most earnestly entreat my readers to weigh every fact, and rigidly scrutinize every inference; and if found wanting in truth and accuracy, at once, without any compromise, to reject them. I court no train of submissive disciples, for I should esteem it no honour to drag others unresistingly after me in the chains of a system; and would feel much more gratified to have my statements scrutinized and corrected, if found erroneous.

SYSTEM OF LINNÆUS AND LATHAM.

All who have any knowledge of natural history, must be familiar with the name of Linnæus, or, as he is sometimes affectedly called, Linné, though few seem to be acquainted with his real merits. The circulation which his works have obtained, and the sway which his systems still hold, incontestably prove him to have been one of those rare master spirits destined to fascinate and dazzle those of inferior mould, so far as to make them resign themselves unconditionally to his guidance. The characteristics of his genius became apparent from his very boyhood, in his acquiring an extraordinary knowledge of plants, in spite of every obstacle; his travelling from Upsal to Lapland amidst numerous privations, and the publication, at his return, of a Flora of the country, accurate and distinct even to a miracle. It is worthy of remark, that the venerable Boerhaave had penetration enough to foresee his celebrity long before he attained much distinction. Indefatigable perseverance, one of the most characteristic marks of

genius, he possessed in no ordinary degree; otherwise he could never have completed a tenth part of his magnificent design, of forming an Index to the countless productions of nature, the true light in which his great work ought to be viewed, though his followers have so preposterously considered it not as any Index, but as the Book of Nature itself.

Some modern writers tell us, that "the glory of Linnæus is built" upon his having "first pointed out the distinction between the natural method and the artificial system," and upon his having "first remarked the existence of intermediate genera between natural orders." * Again we are told, that "his great and transcendent merit lies" in his attempt at "the investigation of the affinities which unite the larger groups" † of animals. It is much to be questioned, whether Linnæus himself, had he been alive, would have considered these trivial matters very meritorious; while he would have stood up most manfully for the value of his miraculous Index, upon which, amidst the duties of a laborious practice as a physician, he laboured, as he tells us, "for three lustres, with new vigour and fresh enthusiasm."‡ Who is there that can refuse to admire the youthful ardour of this venerable naturalist, who has so long given laws to his favourite science? and who is there but must regret that his great Index has been so extensively mistaken for a book, and his real merits so far misunderstood. That this great man himself mistook the instrument for the execution, and the means for the end, might perhaps be proved; but that is no reasonable excuse for others to follow him blindfold into the same error, and shews that they do not possess a particle of their master's spirit of mental independence.

By fixing upon the numbers and forms of the parts of flowers, Linnæus was successful in contriving a system of botany, ingenious, simple, and, with some exceptions, easy in its practical applications; but it possessed, with all these excellences, the glaring defect of classing side by side a motley assemblage of lofty trees and minute herbs, such as the soft and slimy pond weed, the prickly holly bush, and the tiny wall chickweed, (*Sagina*,)§ though

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* Horæ Entomol, p. 20. † Linn. Trans. xiv. 516.

‡ Fauna Suecica, Dedicatio, p. 2.

§ See his class Tetrandria, order Tetragynia.

the systems lauded as natural are often equally faulty.* It would have been well, however, had Linnæus confined himself to botany, for his systems of animals appear to me (though not to many others) to be very inferior, and show, most obviously, that he grasped at what was beyond his reach, or rather what he had not leisure, or could not procure sufficient information to perfect. In some instances, I admit, he shows glimpses of extended views of nature; but there cannot be a question that the general character of all his systems exhibits a deficiency of philosophic generalization, and is marked by a narrowness and trifling, whence it is not improbable he has obtained so many disciples, it being much easier to find persons fond of trifling detail than of philosophic deduction. These remarks are easily proved. "The study of natural history," says Linnæus, "consists in the collection, arrangement, and exhibition of the various productions of the earth."† But a study thus narrowed down, and without a reference to causes, effects, or the wise contrivances of the Creator, I am most confident could never lead to the Natural History which Lord Bacon declares to be the basis of all science, and "fundamental to the erecting and building of a true philosophy."‡ The puerility of limiting his descriptions of specific character to twelve words,§ and of dividing one of his works|| into twelve parts, because there are twelve months in the year, and into 365 paragraphs, to correspond to the number of days in the year, requires only to be mentioned, to show that Linnæus, though well fitted for arranging the specimens in a museum, was little qualified for becoming a philosophic naturalist. It was the opinion of Linnæus, that the superiority of a naturalist depends upon his knowing the greatest number of species;¶ but though I doubt not that a good gossiping naturalist might thus be made, by storing the memory with specific names and technical distinctions, all comprehensive and philosophic views of nature run the hazard of being broken down and lost in an endless and useless

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* See the Rosaceæ, Rubiaceæ, &c. of Jussieu.

† Linnæus, Systema Naturæ, Intro. ‡ Sylva Sylvarum, Pref.

§ See an instance of this at page xxv. Note. || Fundamenta Botanica.

¶ Phil. Bot. 8vo, Cura C. Sprengel, Halæ, 1809.

crowd of unarranged ideas, like the disunited and scattered links of what ought to form a beautiful and magnificent chain.

That I am not alone in thus viewing the system of Linnæus, I could show by numerous references to eminent authorities. "Through the whole of the Linnæan classifications," says Dr. Aiken, "there runs the same attention to minute circumstances in quest of distinctive marks, which throws a littleness over his systems, and gives them the praise rather of ingenious invention, than of coincidence with the sublime plans of creation."* Professor Lindley is still more severe, when he says, the Linnæan system "skims only the surface of things, and leaves the student in the fancied possession of a sort of information, which it is easy enough to obtain, but which is of little value when acquired."† When the botanical, which is by far the best of the Linnæan systems, is thus spoken of by a distinguished master of the science, what are we to think of the others? White of Selborne, speaking also of Linnæan botany, treats it in the same way, when he says, "the standing objection has always been, that it is a pursuit that amuses the fancy and exercises the memory, without improving the mind or advancing any real knowledge," and "where the science is carried no farther than a mere systematic classification, the charge is but too true.‡" Alluding to the student of such systems, Mr. Vigors most truly and elegantly says, "his mind becomes wedded to a subordinate branch of his subject, and is drawn away from the contemplation of sublimer truths. It is upon the labours of man that he dwells, and not upon the works of the creation. He dwindles, as it were, into a mere compositor of the volume of nature, artificially putting together the symbolic words that stand for ideas, while the ideas themselves, in their true meaning and spirit, escape him. And thus the exertions which, properly directed, might have tended to explain the laws and elucidate the operations of nature, which might have been devoted to a study purely intellectual, are lost in a pursuit which is strictly and exclusively mechanical."§ "Linnæus," says Mr. Kirby, "taught us, indeed, how to name properly the smaller branches and

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* Letters to a Son, i. 126.

† Synopsis of the British Flora, Pref. p. xi.

‡ Nat. Hist. Selb.

§ Zool. Jour. i. 181.

sprays of the tree of nature; but the larger branches were left to chance and the caprice of scientific men."* "Like the religion of Mahomet," says Mr. MacLeay, "the Linnæan system has given rise, in some parts of Europe, to an unfortunate species of self-content, a barbarous state of semi-civilization, which is so far worse than absolute ignorance, that the existence of it seems to preclude every attempt at further improvement;"† and again, in no very gracious phrase, he talks of "the defunct or dying Linnæan school;"‡ and in terms still more marked he says, "I myself was one of the first, I acknowledge, to declare just war against them;" ["the old Linnæan school of England,"] "but they are now at their last gasp. A few days more and their existence will be matter of history."§ The truth seems to be, that the Linnæan system mainly contributed to extinguish the genuine study of nature, and rendered it unpopular for many years; since almost every writer surrendered himself unconditionally to its shackles, and of course repelled every student imbued with a particle of philosophy or of taste, or alive to the glorious beauties of the Creation.

The reader may at once see the difference between the dry, lifeless, marrowless, and unphilosophic descriptions of the Linnæan School, and the plan pursued in the present work, by comparing the two accounts of any particular bird,—the eagle, for example, or the bank swallow (*Hirundo riparia*, Ray.) The latter is thus described by Linnæus: "Cinereous; chin and belly white. Inhabits Europe and North America; four inches and three-quarters long; builds in holes in sand pits and banks of rivers. Bill blackish; throat encircled with a mouse-coloured ring; legs black, downy behind."‖

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* Zool. Journ. i. 430. † Horæ Entomol. Pref. p. 21.

‡ Zool. Journ. iv. 408.

§ A Letter on the Dying Struggle of the Dichotomous System. By W. S. MacLeay, Esq. M. A. Addressed to N. A. Vigors, Esq., M. A., Sec. Zool. Soc. page 35. 8vo. Printed by R. Taylor, London, 1830.

‖ Turton's Linnæus, i. 629. The original, still more brief, adheres to the rule of twelve words: H. riparia, cinerea, gula abdomineque albis—Habitat in Europæ collibus arenosis abruptis, foramine serpentino."—Linnæus, Syst. Nat. Ed. 12. p. 344. This is besides quite inaccurate; for the bird does not "inhabit a serpentine hole;" it only rears its young there: few birds make any other use of their nests.

This is all which we are taught to believe "the industry of man has been able to discover concerning it;" unless we suppose that Linnæus by this means the references which he gives to antecedent authors.* Pennant's description of the bird, though he had before him, in manuscript, the admirable account of a genuine naturalist, White of Selborne, is no less brief and poor; and Latham's, though a little more circumstantial, is very meagre;† while Cuvier's is equally brief, and half of it consists of credulous absurdity, asserting as "well authenticated, that it falls into a lethargic state during the winter, and even that it passes that season at the bottom of marshy waters!!!"‡ Well may Dr. Fleming say, "it is painful to advert to the second era of British Zoology, during which the artificial method of Linnæus occupied that place, which physiology had so successfully filled."§ Yet though Dr. Fleming deserves the esteem of every lover of nature for his Philosophy of Zoology, his subsequent work on the History of British Animals is more decidedly formed on the faulty model of the Linnæan school, than that of Pennant which he stigmatises, and has no pretensions whatever to the title of *History:* his account of the bank swallow, indeed, is much inferior to that of Latham.

I may be told that these several works cannot be justly compared, as their objects are different; but I answer, that they all exhibit a similar character of Linnæan brevity, which I call deficiency, and consequently inaccuracy.

In constructing his system of birds, Linnæus looked only at the various forms of the bill, whence he makes six divisions or orders, the water birds most unnaturally ranking in the third and fourth, and separating the pies and the poultry (*Gallinæ.*) In the descriptions of these orders, his inaccuracy in his attempts at generalization is very apparent. We were prepared for this, indeed, from his description of birds in general, which, he says,

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* Ibid, page 3; "Hoc nomen indigitat quæcunque de nominato capere beneficio seculi innotuere."—Linnæus, Syst. Nat. Intr.

† Gen. Hist. of Birds, vii. 289.

‡ Griffith's Cuvier, vii. 61.—"Brune dessus et à la poitrine; la gorge et le dessous blancs. Elle pond dans des trous le long des eaux. Il paraît constant qu'elle s'engourdit pendant l'hiver, et même qu'elle passe cette saison au fond de l'eau des marais."—*Régne Animal*, Tome i. p. 396.

§ British Animals, Pref. viii.

"fly in the air, and sing,"* forgetting that more than two-thirds of all the known species of birds *never sing;* and that many birds, such as the cassowary, the ostrich, and the penguin, *cannot fly* for want of sufficient wings. In the same vein, we are told of his small birds, (*Passeres,*) that they are "vocal, and feed the young by thrusting the food down their throats." It is also said, "nest formed with wonderful art."† Whence we must of course infer that the fly-catchers, (*Muscicapidæ*, VIGORS,) certainly, with few exceptions, the most silent of all birds, are "vocal;" and that the flimsy nest of the nightingale, and the few straws collected by the larks and other ground builders, though arranged with much neatness, constitute a "nest formed with wonderful art." The story of thrusting or ramming food down the throats of the young, is at variance with the observation of every boy who ever robbed a bird's nest.

The late Dr. Heineken, an unquestionably good naturalist, justly characterises Gmelin, a well-known disciple of this school, as having an "instinctive propensity towards the erroneous, (an obliquity by no means unusual with this sort of gentry)." He also says, "Gmelin's thirteenth edition of Linnæus, as it is called, I have had the good fortune never to be burdened with." [Temminck calls it 'the most indigested book in existence,'‡] "but in an evil hour, a kind friend bestowed upon me the seven ponderous tomes of that kindred spirit, Turton."§ It is worth remarking that the good sense of the English public never encouraged this latter work, which may now be had for little more than the price of waste paper, along with a book of similar trash—Moh's Natural History System of Mineralogy, by Haidinger; at the very time, too, when the works of genuine naturalists, such as White's Selborne, and Knapp's Journal of a Naturalist, are selling by thousands: facts of more weight than any argument in proof of my position. Cicero was advised by his friends not to write his

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* Turton's Linnæus, i. 4. "Aves. Aëreæ *vocales* volucres pulcherrimæ.—Alis duobus *pennatis volitantes* bipedes dignoscuntur."—Linnæus, Syst. Nat. vol. i. p. 109, edit. 12th.

† Turton p. 132. "Nidus artificiosus; Pullis cibus incalcandus."—Linnæus, Syst. Nat. vol. i. p. 116, edit. 12th.

‡ Manuel d'Ornith., Avant-propos, p. xxxii. § Zool. Journ. v. 73.

works on Greek philosophy in Latin, because those who cared for it would prefer his work in Greek, and those who did not would read it neither in Greek nor Latin. Cicero, however, fortunately did not follow this advice, and the splendid success of his works, *De Natura Deorum*, *De Officiis*, &c., showed that his friends were wrong: he persevered in the popular style, and led the fashion, as Buffon and our own White did in Natural History. The writers of dry methodical books, indeed, console themselves, like bad poets, with the dream, that their writings are appreciated by the chosen few; but while it may be admitted that they know the subject on which they write, it is clear they want talent for communicating their knowledge.

It is pitiful to hear the querulous tone in which the manufacturers of words and systems complain of their "legitimate" productions, as they call them, being "unworthily neglected," and "left to languish and decay;" "because the grown-up public are satisfied with infants' food in the shape of cheap compilations, crude translations, *wonders of the insect world*, &c. &c., with such like amusing trifles, fit only for children." * This may be taken, indeed, as the creed of each and every systematist, who looks upon details of the wonders and wisdom displayed in creation as amusing trifles, fit only for children, while the "legitimate science" of names, grouping, and affinities, is fit to "reflect honour upon any age and country." I, on the contrary, claim no merit for looking upon this so-called "legitimate science" as far below the level even of an amusing trifle; since to every rational reader, not infected with the mania for this sort of frippery, arrogantly and falsely called science, it must appear in the same light. Pitying the dry drudgery of the authors who have spent their hours in thus nibbling down nature to their own narrow measurements, and laying their works on the shelf, where they are destined to remain unopened, I bid them a long farewell, and hurrying "forth," as Solomon did of old, "to the field," I can revel with "ever new delight" in

> "The boundless store
> Which bounteous Nature to her vot'ries yields;

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* Mag. of Nat. Hist. iv. 273.

> The warbling woodland,—the resounding shore,
> The pomp of groves, the garniture of fields—
> All that the genial ray of morning gilds,
> And all that echoes to the song of even."
>
> BEATTIE.

The venerable Dr. Latham, now (1831) in his ninety-first year, has made some slight improvements on the Linnæan system, and corrected a few of the more glaring blunders; but,—while it is impossible not to admire his enthusiasm, being now, as I am informed, as lively as he was more than half a century ago, and as delighted in seeing a specimen of a new bird as a boy on finding his first bird's nest,—it is much to be regretted that he belongs so decidedly to the school of Linnæus, and that he has not fallen upon a more convenient method of communicating his extensive knowledge. His General History of Birds, in ten volumes quarto, price twenty-one guineas, is essentially Linnæan in character, and though it forms a tolerable book of reference, which might be advantageously condensed into a half-guinea volume, it cannot, with any propriety, be called a history. It would have been much better also, without the coloured plates, which so much enhance the price of the work, though we may well excuse the execution of these, when we recollect that they were all etched and coloured by the worthy Doctor himself.

It is much to be lamented, that the meagre index fashion of describing natural productions was ever introduced, since it has so seldom been employed in the only way in which it can be useful; and it appears to have taken such deep root, as to threaten, like some sorts of noxious weeds, to be incapable of being eradicated; for by far the greater number of recent works upon the subject, even when they pretend to novelty of system, have the essential characteristic of the Linnæan school, of being most carefully stripped of every interesting detail, and trimmed down to a limited number of lines, reminding us strongly of the old poets, who squared their verses into the forms of adzes, hearts, and triangles, and left the consideration of sentiment and imagery to bards who would not condescend to such puerile trifling. We find little, indeed, in Linnæan works besides dry catalogues, arranged in endless divisions and sub-divisions, each ticketted with some sesquipedalian or barbarous name; the whole exhibiting a great wilderness of words,

in which the works of creation appear in the form of petty, mutilated scraps, out of all proportion with the originals; and each and all of their descriptions may be easily proved to be grossly inaccurate, inasmuch as they are, systematically and by design, deficient in the chief details that are of any possible interest to a student. It would be superfluous to do more than refer to the preceding quotations respecting the grebe's nest, and the bank swallow, to prove my position beyond all controversy, though I am well prepared to hear it stigmatised as an unproved assertion. We cannot open a scientific journal, an encyclopædia, or a volume of the transactions of any of our learned societies, without finding countless proofs of these facts. What is no less surprising, those writers who have ventured to inveigh against this, often show that they are irresistibly swept along the stream of fashion, by inditing what are called Monographs, in rigid accordance with Linnæan barrenness of idea and of deduction: "A wordish description," to use the language of Sir Philip Sidney, "which doth neither strike, pierce, nor possess the sight of the soul."* Such a procedure unquestionably drags down philosophy from the pure eminence on which she sits, to the very dust of the plain.† "Those," it has been justly said, "who employ themselves in disguising and degrading science by cacophonous nomenclature, and a parade of barbarous Latinity, which fools think learning, are entitled to reprobation and contempt. There are many such in France, and some among ourselves,—great men in their little circles: they do well to make the most of this, for they may rest assured, that however high they may rank in their own estimation, or in that of their *coteries*, the world neither knows nor cares any thing about them."‡

It grieves me to see several living naturalists of splendid talent, both for observation, philosophic deduction, and eloquent narrative, frittering away their time upon nomenclature, monographs, and Linnæan indices of nondescript species, which any subaltern attendant in a museum could execute sufficiently well; and when

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* Defence of Poesy, p. 19, Gray's ed. Oxford, 1829.

† Ludit istis animus non proficit, et philosophiam a fastigio deducit in planum. —*Cicero.*

‡ Loudon's Mag. of Nat. Hist. i. 370.

the latter are now become so numerous, "the superior" and "the higher naturalists,"* as they are called in the Zoological Journal, should leave it "to meaner hands to carry the muster-roll,"† since they cannot have the same pretence for employing themselves upon the inferior departments, as Lord Bacon had. "I have heard his lordship," says the Rev. Dr. Rawley, "speak complainingly, that his lordship (who thinketh that he deserveth to be an architect in this building) should be forced to be a workman and a labourer, and to dig the clay and burn the brick."‡ "In the description of species and the analysis of groups," says Mr. Vigors, most justly, "we act at best but as the pioneers of science; and in the 'obscure diligence' by which we work out such mechanical details, we deserve the credit merely of executing those subordinate duties, which may ultimately enable ourselves or others, from judiciously and comprehensively continuing the results of our labours, to confer true interest upon our pursuits."§

A lexicon, or explanatory catalogue, is of unquestionable and indispensable use, for the purpose of identifying the species which may come under observation, or chance to be connected with interesting discussion and detail. Even a collection of synonimes, if executed with accuracy, is important, as I daily find the minutely correct catalogue of Mr. Stephens to be, with regard to insects; and with this view, I have paid considerable attention to synonimes in this work. But nobody beyond the barriers of Linnæanism could ever dream of designating any of these (useful though they be) a Natural *History*, any more than of calling a work like Blair's Chronology, the History of the World. The best work of this description with which I am acquainted, upon birds, is the "Manuel d'Ornithologie" of Temminck, which, though essentially Linnæan, is much more circumstantial and accurate than is usual with the disciples of this school. It evidently proves, however, that the author is much better acquainted with collections of stuffed specimens than with living birds, except such aquatic ones as frequent the shores of Holland;‖ and in this point of view, it contrasts strongly with the Dictionary of Montagu.

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* Zoological Journal, iii. 470.

† New Syst. of Nat. Hist. ii. 7, 8vo, Edinb. 1792.

‡ Sylva Sylvarum, Pref. § Zool. Journ. iii. 435.

‖ Temminck, Manuel, Avant-propos.

But leaving these remarks to stand or fall, according as the reader, upon due examination, may find them to agree with the facts, I must now advert to a system recently proposed, which, on its first announcement, put forth the high claim of being exclusively,—if not *the natural system*, at least the rudiments thereof, or furnishing the means for arriving at this, and, therefore, in accordance with the plan of the Deity at the creation. The attempt was, beyond all question, highly laudable, though, as I shall endeavour to show, after giving a brief outline, it appears to be altogether a failure. Mr. W. S. MacLeay, the author of these views, spoken of by his disciples as "that profound zoologist, who has succeeded more effectually than any of his predecessors, in unravelling the intricacies of *the system pursued by Nature* in the distribution of the animal kingdom,"* himself tells us, that "an artificial system is a dry unmeaning collection of names, unless it be made subservient to the discovery of the natural one.†"—"It requires neither talent nor ingenuity to invent an artificial system. This," he adds, "is the miserable resource of the feeble mind of man, unable to comprehend in one view the innumerable works of the creation; whereas the natural system is the plan of the creation itself—the work of an all-wise, all-powerful Deity."‡ Again, speaking of his discovery of what he calls the *nature* of the difference between analogy and affinity, Mr. MacLeay says, "It is quite inconceivable, that the utmost human ingenuity could make these two kinds of relation tally with each other, *had they not been so designed at the Creation.*"§ In another place he talks of portions of his system being "almost mathematically proved to be natural."‖

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* Zool. Journ. ii. 258. † Horæ Entomol. Pref. xii. ‡ Ibid. xiii.
§ Linn. Trans. quoted in Dying Struggle, 26.
‖ Dying Struggle, p. 28.

THE QUINARY SYSTEM AND MODERN DOCTRINE OF TYPES, AFFINITIES, AND ANALOGIES.

It was a fancy of Darwin's, borrowed from Epicurus,* that animals were produced by some inexplicable chemistry, from a single and simple filament or threadlet of matter, which, by its efforts to procure nourishment, lengthened out parts of its body into arms and other members. When some of these supposed threadlets of matter again had, in process of time, improved themselves into birds, the different forms of their bills were, he says, in the same way gradually acquired and hereditarily transmitted, as were the long legs of some water fowl, (*Grallatores*, Illiger,) from the endeavours of the birds to elevate their bodies above the water in which they waded.† Supposing for a moment this wild theory to be true, we might, in forming a systematic catalogue of animals, divide them into groups according to the similarity of their improved organs; for example, the long-legged wading birds, just mentioned, in one group, and the swimming birds with webbed feet (*Natatores*, Illiger) in another; which two groups we might again for convenience subdivide into subordinate groups, such as the snipes, (*Scolopacidæ*, Vigors,) the rails, (*Rallidæ*, Leach,) the ducks, (*Anatidæ*, Vigors,) and the gulls, (*Laridæ*, Leach,) which, according to this fanciful hypothesis, are all more nearly or distantly related or akin to each other, as they are more advanced in the improvement of their organs, compared with the original threadlet that had none.

The Quinary System, under consideration, while it professes to reject this strange doctrine, at the same time adopts its very language in the most unequivocal manner.‡ "Though nature," says Mr. Vigors, with peculiar elegance of illustration, "no where exhibits an absolute division between her various groups, she yet displays sufficiently distinctive characters to enable us to arrange

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* Lucretius, De Naturâ Rerum, v. 795, &c.

† Darwin, Zoonomia, sect. xxxix. 3d edit. London. 1801. See also Lamarck, Philosophie Zoologique: and Robinet, De la Nature, vol. 5, *passim*.

‡ See MacLeay, Horæ Entomologicæ, and Linn. Trans. xiv. 46; Vigors, Linn. Trans. xiv. 398; Zoological Journ. *passim;* and Gardens and Menag. of the Zool. Soc. Del. *passim*.

them in conterminous assemblages, and to retain each assemblage, at least in idea, separate from the rest. It is not, however, at the point of junction between it and its adjoining groups, that I look for the distinctive character. There, as M. Temminck observes, it is not to be found. It is at that central point which is most remote from the ideal point of junction on each side, and where the characteristic peculiarities of the groups, gradually unfolding themselves, appear in their full development; it is at that spot, in short, where the *typical* character is most conspicuous, that I fix my exclusive attention. Upon these *typical* eminences, I plant those banners of distinction, round which corresponding species may congregate, as they more or less approach the *types* of each. In my pursuit of nature, I am accustomed to look upon the great series in which her productions insensibly pass into each other, with similar feelings to those with which I contemplate some of those beautiful pieces of natural scenery, where the grounds swell out in a diversified interchange of valley and elevation. Here, although I can detect no breach in that undulating outline, over which the eye delights to glide without interruption, I can still give a separate existence, in idea, to every elevation before me, and assign it a separate name. It is upon the points of eminence in each that I fix my attention, and it is these points I compare together, regardless, in my divisions, of the lower grounds, which imperceptibly meet at the base. Thus also it is that I fix upon the *typical* eminences, that rise most conspicuously above that continued outline, in which nature disposes her living groups. These afford me sufficient prominency of character for my ideal divisions; for ideal they must be, where nature shows none. And thus it is that I can conceive my groups to be at once separate and united; separate at their *typical* elevations, but united at their basal extremes."*

In order to understand what is here meant by *type* and *typical*, it may be necessary to state, that all the animals in any particular group, are described as endowed with particular characters, whose union constitutes what is denominated a *type* (*Centrum*, Fries;) and in proportion as the species in the group are found

* Zoological Journal, i. 197.

more or less to resemble this *type*, they are said to be more or less *typical*. "The *centrum* or perfection of a group," says Mr. Mac Leay, "is in fact that part of the circumference of the circle of affinity which is farthest from the neighbouring group, and exactly the same thing with what in the *Horæ Entomologicæ* has perhaps more happily been called *type*."* Again, we are expressly told that one portion of a group is always *normal*, that is, according to rule or corresponding with the *type;* and another portion is always *aberrant;* that is, wandering from the rule, or not perfectly corresponding with the *type;* all which terms are borrowed from Robinet, De Blainville, or other foreign writers. For instance, the group of vultures (*Vulturidæ*, Vigors) being arranged according to this plan, the *normal* character, we are told, is "general conformation powerful; head and neck bare of feathers; organs of smell strongly *developed*."† The *aberrant* character is, "general conformation weaker; head and neck less bare of feathers; organs of smell less *developed*."‡ All these vultures, as well as the animals in any similar group, whether *normal* and corresponding with the *type*, or *aberrant* and not conformable thereto, are said to have an *affinity* with one another, alleged to be real, natural, and, of course, a portion of the plan of the Deity; while they have an *analogy*, or representative and symbolical resemblance, in form, and other characters, to some other group or groups of animals. The vultures, for example, while they have both an *affinity* among the members of their own group, and a more distant one with the groups of eagles and of owls, have an *analogy* (but no affinity) to dogs and to insects which feed on carrion (*Necrophaga*, Latreille.)

The MacLeayan systematists, upon grouping animals by their *affinities*, also arrange them in a circular series, uniformly consisting of *five* members, whence the system has been called the *Quinary* system. These five members also are said to be composed of two *normal* or *typical*, and three *aberrant* ones,—the vultures, for example, thus:

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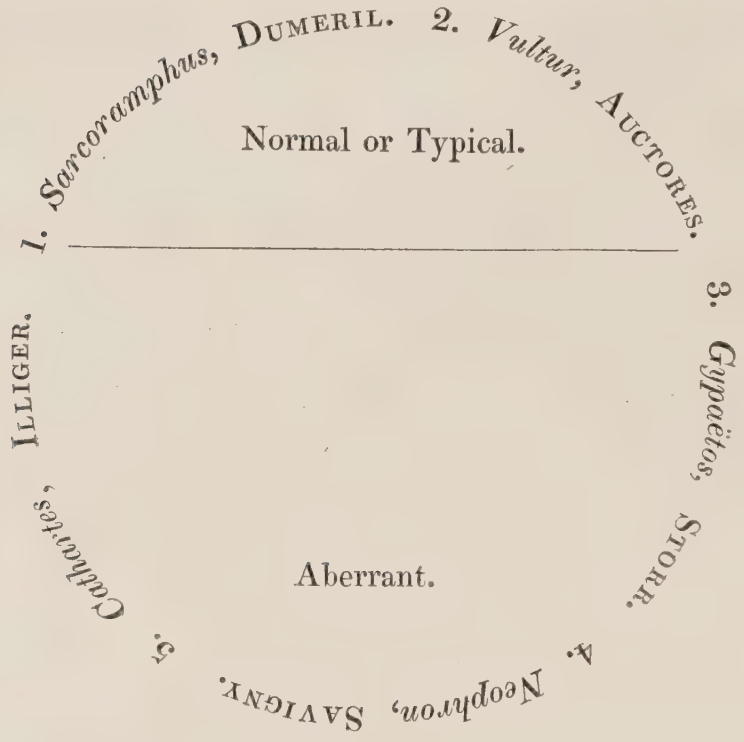
* Linn. Trans. vol. xiv. p. 59.

† Zoological Journal, ii. 374. ‡ Ibid, p. 377.



Here the fifth member may be perceived "*leading round*" to the first in order to *inosculate* with it. The term *osculant*, that is, kissing, or touching, is applied to "groups, which" are said to "form the *passage* between neighbouring groups of higher degree and denomination than themselves."* "Laying aside osculant groups," says Mr. MacLeay, "every natural group is divisible into five, which always admits of a binary distribution, that is, into two and three."† "Notwithstanding, also, the opposite declarations which I have heard made," Mr. MacLeay says, "I must persist in asserting that neither the arrangement of these groups, nor the groups themselves are arbitrary. Both, I may say, are almost mathematically proved to be natural." ‡ We are taught further, that such circular groups of five members as this, make an *approach* or *passage* towards other groups, and that the whole objects of creation may be thus linked together in circular groups of fives. When the systematists cannot perfect this number five in any particular group, they tell us that the deficient member has either perished

* Vigors, Zool. Journ. ii. 65. † Linn. Trans. vol. xiv. p. 587.
‡ Dying Struggle, p. 28.

from the earth* or remains to be discovered by subsequent research.† "Intervals," says Mr. MacLeay, "do not lessen the truth of the chain, because some of the links may not yet be discovered."‡

This is a brief outline of the views upon which animals are arranged in the system in question, so far as I can comprehend it; yet I have little doubt that it will be said I have fallen into misrepresentation; though in that case I shall be in good company, for, amongst others, Dr. Fleming,§ Dr. Virey,‖ and Mr. Kirby,¶ have been accused of not understanding the system. If men of their superior powers, and experience also as naturalists, cannot understand the published works of the systematists, I am fairly entitled to infer that they must be unintelligible to inferior minds, and consequently useless to all but a few of the initiated. One thing I am certain of, that I have spared no pains in labouring to decypher all the writings of the school which I could procure. But inventors of systems, it may be remarked, are generally very hot and testy when they meet with opposition; of which (to pass by living examples) Linnæus himself affords a marked instance; for because Buffon had treated his classification with little respect, he took care never to quote any of his works, "despising," as he says, "those grinning apes and chattering baboons whom I have encountered in my journey."**

In the necessarily limited space of an introduction, I cannot go much into detail either in explanation of this system, or in stating such objections to it as have occurred to me; but I shall endeavour to show that it rests, so far as I can perceive, on very untenable grounds. "In natural history," says Mr. MacLeay, "we have always good reason for suspecting methods,"†† and still more, I should say, for suspecting principles. The doctrine of *types*, if I comprehend it aright, is one of those suspicious prin-

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* Linn. Trans. vol. xiv. p. 54. † Ibid, vol. xiv. p. 409.

‡ Dying Struggle, p. 29. § MacLeay, Dying Struggle, *passim*.

‖ Zool. Journ. iv. 49. ¶ Dying Struggle, page 25.

** Kerr's Linnæus, p. 13. The original is if possible still stronger. "Ringentium Satyrorum cachinnos, meisque humeris insilientium Cercopithecorum exultationes sustinui." Linnæus, Syst. Nat. Introitus, ed. 12th.

†† Horæ Entomologicæ, p. 6.

ciples, being evidently a shoot from Plato's wild theory of pre-existant ideas, or the archetypes of all things,* and more directly borrowed from the atheistic system of Robinet. His doctrine bears, that Nature's grand aim was to make man, and being incapable of doing so at once, undertook an apprenticeship (*apprentisage*) of experiments, by making various *types* of his several organs; such as the hand-shaped roots of some of the orchis family, the brain-stone coral, and the stink horn, (*Phallus fœtidus*, SOWERBY,) of many of which he gives figures. "A stone," he says, "an oak, a horse, a monkey, a man, are only graduated variations of a *prototype* which has begun to be realized by the least possible elements. A stone, an oak, a horse, are not men, but they can be regarded as *types*, more or less conformable to the same primitive design, and they are all the product of the same idea, more or less *developed*."† It was with no little astonishment, that I found the Rev. W. Kirby, a naturalist of great talent, an accomplished scholar, and a divine of the soundest religious sentiments, for whose works I have a high esteem, not only adopting, but eulogizing this very doctrine, as coming from Mr. MacLeay, though he elsewhere rejects it with laudable indignation, as coming from Robinet.‡ "According," he says, "to this opinion," [MacLeay's] "which seems the most consistent of any yet advanced, and which reconciles facts which upon no other plan can be reconciled, the series of beings is involved in the highest degree, rolling wheel within wheel *ad infinitum*, and revolving, if I may so speak, round its centre and summit—man:§ who, though not including in himself all that distinguishes them, is still the great *type* in which they terminate, and from which they *degrade* on all sides."‖ This, indeed, seems almost a translation of Robinet. I am not surely called upon to enter into a serious refutation of such doctrines as these, or to be accused of dealing in unproved assertion, by appealing for their fallacy to the plain sense of the reader. On the contrary, I am most justly entitled to call for a proof of the assumptions, that a stone has improved itself into an

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* Cicero, Tusc. Quæst. I. 15. † Robinet, De la Nature, v. vii.
‡ Intr. iii. 350, note. § "N. Dict. d'Hist. Nat. xx. 485." ‖ Intr. iv. 369.

oak, and a horse into a man, or that these degrade from man on all sides.

The theory of *types* seems by no means to be an improvement on that of Plato, for he did not imagine the existence of any thing *aberrant* or *degraded* emanating from the Deity. "The multiplication of organs," it is alleged, "is a sign of imperfection." "Who," it is also said, "that observes that in proportion as pedate animals approach the human *type*, their motions are accomplished by fewer organs,—that man walks *ore sublimi*, upon *two* legs; the majority of quadrupeds upon *four;* insects upon *six;* the Arachnida apparently upon *eight;* most Crustacea upon *ten;* and the Myriapods and others upon *many;* but will thence conclude that insects must *precede* the Arachnida and Crustacea?"* Were it not for the high and decided tone of piety which pervades the writings of all the disciples of this school, I should be strongly disposed to consider much of the preceding language as bordering on irreverence towards God, though I am very certain the contrary was meant, and that this would have been expunged, had such an interpretation of it been deemed possible. I might be referred, indeed, to the Bible, where it is said, "Whatsoever hath more feet," (or as the margin reads it, "doth multiply feet,") "amongst all creeping things that creep upon the earth, them ye shall not eat, for they are an abomination."† This passage, however, has no allusion to what is imperfect or degraded; but to what is to be held clean or unclean, fit or not fit, to be eaten. The authors repeat similar doctrines in various parts of their works, such as when they distinguish the mouths of insects, as "perfect" and "imperfect," according as seven enumerated organs are present, or "deficient."‡ They further tell us, "there are five kinds of imperfect mouth," exemplified in the numerous species of flies, gnats, butterflies, &c.; though these very organs here called "imperfect," exhibit some of the most admirable displays of mechanical contrivance§ to be found in the creation, as the authors well know. If I am told the epithet *imperfect*, is a mere term, not meant to ascribe defect to the great Creator, I am certainly entitled to say, that a more highly objectionable one could not have

* Kirby and Spence, Intr. iv. 374, et seq.
† Levit. xi. 42.
‡ Kirby and Spence, Intr. iii. 417.
§ Zool. Journ. i. 94. note.

been found. Even upon the same principles it might, by reversing Savigny's process, be as plausibly argued that the "perfect" mouth of a beetle, is more imperfect than that of a gnat. The correct view of the matter I take to be, that a worm is as perfect "after its kind," as a man or an angel; and that all its organs, which are the workmanship of an All-perfect Creator, are as perfect, whatever be their number, for performing the functions assigned them by divine wisdom, as those with which we ourselves are furnished. Will the authors, who maintain that an animal rises, in *their* scale of perfection, in proportion as it has fewer feet,*—say that a goose is more perfect than an elephant, or that a snail is more perfect than a man, because it has but *one* foot, (as it is usually termed†,) or a worm more perfect still because it has *none?* Mr. MacLeay says well that there is "nothing within the whole range of science more worthy of profound meditation, than the plan by which the Deity regulated the creation;"‡ but when those who lay claim to the discovery of this plan, or at least to part of it, talk of the Creator wandering from a supposed *type* to form *aberrant* groups, and of the "imperfection" and "degradation" of particular animals, because they have a greater number of feet, or a smaller number of feeding organs, the strongest terms become too feeble for condemning the highly objectionable doctrine. How very different was the conduct of Socrates, who, according to St. Augustine, swore by the dog, (κυων,) to teach the Athenians that this animal, being the workmanship of God, was more worthy of honour than images and idols. §

That the Quinary system is advocated by men of talent and learning, and occasionally with great eloquence and ingenuity ‖ is much to be regretted; for though religious feelings have hitherto stood prominent in the school, it certainly, from these plain documents, appears calculated to be turned to the worst purposes of the sceptic, confirming instead of furnishing, as is alleged, "a new argument against those" who affirm "under the most stultifying blindness of

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* See Swammerdam's Book of Nature, Tab. xxxii. and Reaumur, Mem. iv. Planches 41 and 42, &c.

† Linn. Trans. xiv. 46. ‡ Ibid. iv. 365.

§ See Plato's Phædon, and De Ver. Relig. iv.

‖ See Winter's Wreath for 1828, p. 289; and Zool. Jour. i. 196, &c. &c.

mind, that the *creatures* were in a manner their own creators." * The doctrine of types, passage, and aberration indeed, seems only another version of the visions of Epicurus, Robinet, Darwin, and Lamarck; for in the Quinary system we find the very language of the latter theorists, in talking of *transitions* of one group into another, and of a species "leading round," or filling up a chasm, and forming a link or *passage* between two groups.† "The weakness" it is said "of the bill and of the legs and feet of the Caprimulgus *still* keeps it at some distance from the owls, in which the same members are comparatively strong; while the wide gape of its mouth serves to divide the families still farther. A connecting link has been however supplied by an Australasian group, the *Podargus* of M. Cuvier, which harmonizes these discrepant characters."‡ The word *still*, though I am well convinced it was not so meant by the author, has no obvious meaning, unless it refer to a time when the Caprimulgus may make a transition or progress to the owl. That this is not, as I have heard alleged in answer, a mere figurative mode of expression, such as when we say, "America approaches Asia at Behring's Straits," appears evident from the whole tone of the system. We are told, for example, that "the nearest approach of the mammalia to the birds exists, according to MacLeay, among the glires, which *make several attempts*, as it were, *to attain the structure of the feathered class*,"§ as plain, strong, and precise terms, as Darwin or Lamarck himself could have used in talking of a jerboa (*Dypus*, Gmelin) trying to convert its legs into wings, or a porcupine (*Hystrix*, Brisson) endeavouring to barb its quills with feathers. The saving clause, "as it were," indeed shows that the author was aware of his words being objectionable. Unless the Creator be discarded altogether, in what way are we to understand this doctrine? The language used can only be reasonably explained upon the theory of animals making "progress," or passing by their own efforts to greater *development* in their organs; the imperfect ones, for example, in the *aberrant* groups, becoming by such efforts *more typical*, losing some of their legs if they

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* Kirby and Spence, Int. iii. 173.

† See Mag. of Nat. Hist. i. 330; and Zool. Jour. *passim*.

‡ Linn. Tr. xiv. p. 401. § Zool. Jour. iv. 416.

have too many, *developing* more feeding organs if they have too few, and the like. The disciples of Mr. MacLeay, I am well convinced, have no such notions; but why then do they use the very words of those who have, and which are not, without twisting, capable of any other meaning? To say this is metaphorical, and refers not to the progress of the animals, but to the progress of the mind of the observer, is at once confessing the fanciful basis of the whole system. Considered either in this light, or in that of the Creator forming animals at first, *more* or *less typical*, or *degraded*, it seems to me as unphilosophical as it is derogatory to the Deity. In the latter view, the language employed must, I think, strike every body who reads it, as highly objectionable and improper; whether it be considered literal or metaphorical; whether, for example, we take Nature as an imaginary personage, or as a synonime or a personification of the Creator, the following passage will appear nearly the same. "In passing," it is said, "from one leading form to another, *nature* seems to advance with greater caution and a slower pace than usual; she appears to *fluctuate* between a manifest reluctance to relinquish the tracts which she has left behind, and an anxiety to anticipate those upon which she is about to enter; alternately retracing or advancing her steps, and nearing, with somewhat of an apparently *wayward indecision*, the different points of each. But when once she has cleared the narrow windings of these intervening passages, and has ascended the typical heights, she seems to have gained, as it were, a table land, where she can expatiate with a wider range, and *indulge* herself with more excursive freedom."* Surely I may in all fairness ask, who is this Nature? If the Creator is not meant, who is it that sometimes "appears to" fluctuate with "wayward indecision," and sometimes seems to indulge a "more excursive freedom?" Not He, I should hope, "with whom is no variableness nor the least shadow of turning."† The indefiniteness of this term, Nature, was perceived even by the heathen moralist, Seneca:—"A man says, 'Nature gives me these things.' Do you understand, that when you say this you are only changing the name of God? For what else is Nature

* Zool. Journ. ii. 66.

† James i. 17.

but God?"* Should I be told that it is a mere figure of speech, and refers to the mind of the observer, not to the reality, I must say it is one which is extremely objectionable, inasmuch as it is exactly the language of those who discard the Creator altogether, and represent animals as their own creators; while it is quite incongruous with the sound and lofty religious sentiments so frequently expressed by the same talented and highly estimable author. Viewed thus, it becomes a more serious matter than a mere dispute about words, or about this and the other classification. "The very styles and forms of utterance," says Lord Bacon, "are so many characters of imposture, some chusing a style **** of plausible tempting similitudes and examples, and some of great words and high discourse."† Were there an obvious foundation in nature for the doctrine, this objection, like the one derived from the existence of evil in morals, might be grappled with as a difficulty; but I confess that these alleged *types* and *aberrant* groups appear to me altogether fanciful. If I am called on to prove that it is fanciful, I shall, in reply, call for proof of the types and the aberrations,—the *onus probandi* evidently resting with the theorists, and not with their opponents. The disciples of the system indeed, though they seem to study little else, find it exceedingly difficult, often impossible, to discover these *types* they hunt after, or even to be certain of them when supposed to be found, a circumstance never characteristic of genuine philosophy. Yet I have been told, that the doctrine of *types* is considered the most stable of anything in Mr. MacLeay's system. So also thought Robinet of *his* types, and referred triumphantly to the *progress* of the frog from the state of a tadpole, and its subsequent *transition* to a sort of fish, and then into a four-footed land animal; a progress which is a fact, though it does not support his inference, any more than what is objectionably termed *greater development* in one vulture compared with another, entitles us to call the first a *type*, and to degrade the second into an *aberrant* group. *Development* can never refer to one species compared with another, and can only be accurately referred to the same individual when mature, compared with its infant state.

The leading object of a student in Natural History and Na-

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* Seneca de Beneficiis, iv. 7. † Interpretation of Nature, Ch. 18.

tural Theology, ought to be to trace effects to their causes, and to investigate the providential design of the forms, structures, and characters of animals. "It is the business," says Sir Isaac Newton, "of Natural Philosophy, to reason from phenomena to God;"* but by following the doctrine of *types* and *quinary* groups, we are led away from this high and philosophic pursuit, and inveigled in an endless labyrinth of critical trifling, whose object is to ascertain in what particular circle a group or species should be placed, to decide whether it should be considered *typical* or *aberrant*, and to trace the most fanciful and utterly worthless analogies frittering down all the glorious beauties of exuberant nature to the measured standard of a false and petty logic, in a similar spirit, but much more blameable than the rules by which Aristotle trimmed down the poetry of the drama. If I may judge from the published essays of this new school, which lays claim to be peculiarly English, I should be disposed, from the preceding facts and documents, to conclude, that if it ever get into temporary fashion, of which I think there is small chance, it will do more to retard the progress of philosophic natural history, and check its popularity and diffusion, than even the Linnæan school did, were it no more than by the introduction of a farrago of technical terms, the meanings of which are founded on metaphysical, and, as it should seem, metaphorical imaginings. If I am told philosophical works never can be popular, I have merely to refer to the extensive sale of Ray's "Wisdom of God;" Derham's "Physico-Theology;" and Paley's "Natural Theology," as an unanswerable reply.

The doctrine of *analogy* as distinct from *affinity*, is strenuously contended for as a discovery of equal rank with that of the harmony of the planetary system. "The diffusion," says Mr. Vigors, "of these principles," [MacLeay's,] "wrought the same change as may be supposed to have affected the views of the early astronomer, when his attention was withdrawn from the mere observation of the splendid orbs of the firmament, from conjecturing their apparent stations, and summing up their various names, to the more sublime contemplation of the harmonious system, in which they revolve through infinite space."† And

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* De Deo ex phænominis diserere, ad philosophiam naturalem pertinet.

† Linn. Trans. vol. xiv. p. 398.

again he speaks of "the great revolution which the publication of these principles has effected in Zoology."* "He has opened," say Kirby and Spence, "to the philosopher, the moralist, and the divine, that hitherto closed door by which our first parents and their immediate descendants entered the temple of nature, and studied the symbols of knowledge that were there presented to them."† The author himself talks in the same lofty vein. "The *nature* of the difference," says he, "which exists in natural history, between affinity and analogy, was, I believe, first discovered in studying Lamellicon beetles; and, in the year 1819, when I published that discovery, &c." "In the year 1817,‡ I detected a quinary arrangement."§ Again, "I cannot indeed be blind to the changes it" [the Horæ Entomologicæ] "has effected in the English school of Zoology. These are evident on the slightest comparison of the Zoological works published in England previous and subsequent to 1822."‖

I am sorry I cannot join such excellent men and able naturalists as Mr. Kirby and Mr. Vigors, in these high eulogiums on the system of their friend, whose extensive learning and superior talents I am most willing to acknowledge; but I must confess that the existence of this "great revolution" is much more novel to me than the alleged discovery, which is by no means new or peculiar in all its bearings, though I am thoroughly convinced, from the statements I have so amply quoted, that it is not only fanciful but pernicious. As to the originality or novelty of the discovery claimed, (though if the system be admitted to be artificial, *invention* would be the correct term,) it will not be difficult to show that the claim has little, if any, foundation. "I *discovered*," says an able advocate of the system, "as I advanced, that the larger or primary groups into which it" [the science of Ornithology] "arranged itself, were connected together by an uninterrupted chain of affinities; that this series or chain returned into itself, and that the groups of which it was composed, preserved,

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* Linn. Trans. vol. xiv. p. 398.

† Introd. iv., 415. It is not a little singular that Mr. MacLeay himself says that he is here praised for what the authors did not understand. Dying Struggle, p. 26.

‡ MacLeay, Linn. Trans. vol. xiv. p. 49. § Ib. p. 62. ‖ Dying Struggle, p. 4.

in their regular succession, an analogy with the corresponding groups or orders of the contiguous classes of Zoology."* Linnæus himself, however, expressly records these very analogies claimed to be newly discovered. "Accipitres," says he, "analogous to the Feræ; Picæ, analogous to the Primates; Anseres, analogous to the Belluæ; Grallæ, analogous to the Bruta. Gallinæ, analogous to the Pecora; Passeres, analogous to the Glires."† It is worthy of remark, that when Dr. Virey shows that he had published similar views in 1803,‡ Mr. MacLeay not only as usual accuses him of not understanding the subject, but even compromises his own claim to the alleged discovery, by taking refuge, as may be seen in a preceding extract, in the indefinite term *nature*.§

I have above briefly stated some of my objections to what is called *affinity*, and shall now come to *analogy*. In some points of view analogy is exceedingly valuable as a logical instrument of investigation, of which we have a most beautiful example in the remark of Origen, that "he who expects the scripture to have come from the Author of Nature, may well expect to find the same sort of difficulties in it as are found in Nature itself," || so admirably developed by Bishop Butler in his "Analogy of Religion." But analogy is perhaps more liable to be abused than any other means of investigation, and in no department of human inquiry has the abuse of analogy occurred more glaringly than in some late speculations in natural history. It was remarked by Aristotle,¶ and repeated by Willis,** with regard to crabs and lobsters, that instead of the flesh covering the bones, the bones cover the flesh. Baron De Geer applied this fancy to insects;†† and M. de Blainville

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* Linn. Trans. vol. xiv. p. 399.

† Kerr's Linnæus, p. 416. "Accipitres, Analogi Feris; Picæ, Analogæ Primatibus; Anseres, Analogi Belluis; Grallæ, Analogæ Brutis; Gallinæ, Analogæ Pecoribus; Passeres, Analogi Gliribus." Linnæus, Syst. Nat. edit. 12th.

‡ Bulletin des Sciences Naturelles, for 1825; and Nouv. Dict. D'Hist. Nat. Art. Animal, 1st. edit.

§ Zool. Journ. iv. p. 49.

|| Χρη μεν τοι γε τον 'άπαξ. κ. τ. λ. Origen, Philocal. p. 23, ed. Cantab.

¶ Περι Ζωων Ιστοριας, Δ. ** De Anima Brutorum, p. 11, edit. 1692.

†† Memoires des Insectes, ii. 2, ed. 1771.

arranged all animals into *vertebrated*, or those having an internal articulated spine; and *invertebrated*, or those having external articulations;* but M. Geoffroy St. Hilaire has carried the same analogies into such minute detail, that they become not a little ludicrous. He finds, for example, not only that the membraneous lungs of birds are analogous to the swim-bladders of fishes, but also to the posterior wings of insects. He tries farther to make out an analogy between the various pieces of the crustaceous shell of crabs and lobsters, and the joints of the spine (*vertebræ*) of quadrupeds. From the spine he proceeds to the ribs, which it is natural, in such a system, to expect will make their way, like the vertebræ, to the outside of the body; and accordingly he states, that what we ignorantly suppose to be the legs of crabs and lobsters, are, in fact, the ribs, which, by some inexplicable process or transition, have pushed themselves out to the exterior, and have assumed the office of legs; while what ought to have been the legs have become jaws,† and are actually called feet-jaws (*Pieds-mâchoires*, CUVIER; *Pattes-mâchoires*, SAVIGNY.) Kirby and Spence, adopting this view, argue, that because one pair of the eight legs in spiders, &c. (*Arachnida*) originate in the head, and not in the trunk, though they perform the office of legs, they are not, therefore, entitled to be called legs "in a primary sense;" but apparently *represent* the feelers or the lips of insects.‡ Pursuing a similar fancy, M. Savigny, with great ingenuity and skill, it must be allowed, endeavoured to show that the suckers of butterflies and the tongues of bees correspond with the jaws of beetles and crickets.§ He has reasoned so plausibly, indeed, that most naturalists are led to think him right, even in opposition to the obvious fact of the jaws being separate and moveable, while the suckers are united, and their parts immoveable. I have already remarked, that the argument would be equally plausible if it were reversed!

These views require only to be stated, in order, I conceive, to demonstrate their fanciful foundation to every unbiassed mind; and Baron Cuvier has shown good sense in strongly opposing

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* Prodrome d'une Nouvelle Distrib., Bull. des Science, 1816.

† Philosophie Anatomique; and Quart. Jour. For. Med. for 1821, p. 35.

‡ Intr. iv. 395-6. § Mem. des Anim. sans Vertebres, pt. i.

them, though they are neither so wild nor mischievous as his own most absurd analogies, apparently derived from the planetary vortices of Des Cartes, whereby he describes an animal, man for instance, as a sort of vortex or focus (*especes de foyers*) into which dead substances are successively carried by a whirling motion, (*mouvement de tourbillon,*) and combined in various ways into living existence.* This is what Leibnitz would have called *un Cartesianisme outré*, as he did the similar atheistic system of Spinoza. It appears very clearly, that a similar fanciful analogy with the motions of the heavenly bodies, which led the Baron to talk such utter nonsense, suggested the Quinary circles. "There is incontestible evidence," says Mr. Swainson, "to prove, that the same system which is found to govern the heavenly bodies—a system plainly circular, is typically represented on earth, and is that upon which the whole of organized matter has originally been planned. * * * * Thus, whether our attention be directed to the animal or vegetable kingdom, to the terrestrial or the celestial world, one plan alone is discernible; and that itself is typical of ETERNITY." It is well known that "the Ancients represented Eternity under the form of a circular serpent; the tail passing into the mouth." † As all this is obviously a mere poetic fancy, unproved and improbable, I cannot surely be called upon to refute it by argument.

"In allusion," says Mr. Westwood, "to the controversy between MM. G. St. Hilaire and Cuvier, respecting a general *typical* formation of all animals, * * * * * * * our own naturalist, Mr. Mac Leay, so far coincides with the opinions of the former, as to consider that the modifications of a *typical* structure may be traced through numerous objects of very different appearance; but he considers that nature has adopted *two* distinct plans, that the *vertebrate* and *annulose* animals respectively represent the perfection of each of those plans, and that all other animals may be regarded as formed upon one or other of them."‡

If this were all, however, those who admire the romance of science, might be left quietly to enjoy their dreams; but when

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* Cuvier, Leçons d'Anat. Comp. i. 5, 6.

† Winter's Wreath for 1828, p. 295—7.

‡ Mag. of Nat. Hist. iv. 82, and Horæ Entomol. pt. ii. p. 214.

these dreams are either avowedly atheistical, by ascribing, with Robinet and Lamarck, the divine workmanship of the Creator, to the self-originating efforts of animals, to get, by what is termed *transition* or *progress*, into groups, having the assumed nearest *affinity* to themselves; or tacitly atheistical, by adopting this very language, while the Creator is at the same time distinctly, though most incongruously, acknowledged: it is my imperative duty, I conceive, when treating of the subject of this volume, to enter my strongest protest, with the reasons thereof, against the innovation. Mr. MacLeay and his followers are obviously amenable to the latter charge; for though they exhibit a tone of religious sentiment, sound, lofty, and enthusiastic, they seldom fail to follow it up, (incongruous and inconsistent as it so clearly is,) with the pernicious language of the French school, as promulgated by Lamarck, Cuvier, and their adherents, who are indeed men of undoubted talent, but it must not be disputed that they have deplorably misapplied their powers, by leaving the path of observation, to flounder about in the Nilotic mud of atheistical metaphysics, though they might have learned from Lucretius, that, even in his time, the mud of the Nile had ceased to be spontaneously prolific.*

If it were in my power, I should be most happy to clear Mr. MacLeay and his followers from the contamination of such writers, but he seems himself to be anxious to acknowledge his obligations to them. "I have," he says, "peculiar reasons for stating that it is to the labours of these distinguished naturalists" [Cuvier, Lamarck, &c.] "that I feel myself more particularly indebted."† Again—"I am so far removed from the scientific world, that I know not whether Lamarck be alive or dead; but I revere him if still on earth, and respect his memory if he has ascended to a better place. Time has only shown me more and more the truth of what eight years ago I said of him. 'His peculiar and very singular opinions have never gained many converts in his own country, and I believe none in this. They are indeed only to be understood by those who are already supplied with the means of refuting them; so that the mischief

* De Natura Rerum, v. 826. † Horæ Entomol. ii. 171.

they have occasioned being comparatively null, we may be permitted to assign due praise to Lamarck, as being the first zoologist France has produced.'"* When I remind the reader, that this "first zoologist" of France gravely tells us that the giraffe acquired its long neck by its efforts to browse on the high branches of trees,† they will not wonder at his having gained few converts in this country; though they may not agree with Mr. MacLeay, that "the mischief" of such doctrines is "comparatively null," when they find his most objectionable terms currently employed in the works of those belonging to what is designated the modern English school. Two pages, indeed, after his eulogium, Mr. MacLeay quotes Lamarck as an authority, to prove the objectionable doctrine of the perfection and imperfection of animals—the same indeed as his own, or rather De Blainville's *normal* and *aberrant* groups, which is opposed, not only to fact and philosophy, but to Scripture, where it is expressly declared that every work of God is "perfect."‡ The language objected to, also becomes the more mischievous and dangerous, from its having recently made its appearance in works intended for young persons, and for general readers—I allude to the Ornithologia of Jennings,§ and to the Gardens and Menageries of the Zoological Society Delineated, the latter being sanctioned by authority of the Council of the Society. Surely the tendency of the language to be met with in this sanctioned publication, which is quite unintelligible, if it be not interpreted on the principle of animals developing their organs by their own efforts,‖ is, to say the least, highly improper in such a work, while its being insidious and not glaring, renders it so much the worse. It was the promulgation of such theories as these, whence, as Cornelius Agrippa says, has "risen this proverbe among the common people, that the greatest philosophers are wont to be the greatest

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* Dying Struggle, page 24, and Horæ Entomol. ii. 328.

† Quoted by Kirby and Spence, Intr. iii. 351. Note. ‡ Deut. xxxii. 4.

§ Mr. Jennings, like Virey, Kirby, Fleming, and others, it is said, "does not comprehend" the system (Zool. Journ. iii. 470.)

‖ See No. xiii. p. 177, No. vii. p. 83, No. ii. p. 25, &c. &c. These passages were found on glancing over a few pages. I have, indeed, seen only some odd numbers of the work.

heretikes:"*—At the same time, I am well convinced this was done without a shadow of sinister design, as the deservedly esteemed authors do not believe the doctrine implied by their words.

Thus it is that men of unquestionable genius and extensive knowledge, when they construct for themselves fantastic theories, "without form and void," are certain to "darken counsel by words without knowledge," no less absurd, as Dr. Wm. Hunter said upon a similar occasion, than "if colours had been explained by sounds."† Such I conceive to be the doctrine of *analogy*, highly useful when judiciously employed; but when pushed to the extremes above exemplified, most absurd and pernicious.

The grouping of animals in fives, a prominent feature of the *Quinary* system, I can easily prove to be equally fanciful and baseless, as the doctrine of *Types*, *Affinities*, *Analogies*, *Progress*, *Development*, and *Quinary Circles*. But it possesses no better claim to originality than the rest, for the idea was entertained by Linnæus: "It was his opinion," says Pulteney, "that nature acts 'numero quinario,' as he informs us in his Diary."‡ That *certain* numbers are found to prevail among the works of creation is sufficiently obvious, but so far from *one* number or its multiples appearing to be universal, we find as great a variety as in any other circumstance. In botany, for instance, one plant (*Ranunculus*) shall have five flower leaves, (*petals*,) and another, (*Ficaria*, PERSOON,) having what would be termed the nearest *affinity* to it, shall have nine flower leaves, (*petals*,) not even a multiple of five. The other parts of the organs of fructification vary much more widely. Most birds again have four toes, though some have only three, as the bustard, (*Otis*, LINNÆUS,) and others only two, as the ostrich (*Struthio Camelus*.) The organs of sense are usually reckoned five, but are in fact ten, in the larger animals, being all in pairs, even to the tongue, which is divided by a median line, while spiders have from one§ to four pairs of eyes. It might answer the purpose of a systematist to tell us that a spider has twice five legs, including the pair of feet-jaws, as the French call them; but what would he

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* Vanitie and Uncertaintie of Artes and Sciences, ch. 25.

† Intr. Lect. ‡ Pulteney's Linn. by Maton, p. 167.

§ MacLeay, Dying Struggle, p. 33.

then make of the two legs of birds, and the fourteen feet of the wood-louse family, (*Oniscidæ*, LEACH,) or the two hundred feet of the millepede, (*Julus terrestris*, LINNÆUS)? In order to reduce these to five, he must have recourse to all the fanciful analogies above exemplified from Geoffroy St. Hilaire and Savigny. Should I be told it is not to organs but to groups the *fives* apply, I could easily show that the published Quinary groups strikingly exhibit the baseless character of the system. For example, the first circle of birds has not as *yet* five but *three* members; the cuckoos are ranked with climbers, though they do not climb, and the perchers include larks that do not perch, and exclude pheasants and herons, which do.* Hence, the circular groups of fives thus inaccurately constructed must be given up. Were any of these numbers indeed universal in nature, we should not have one naturalist (Dr. Fleming) fixing upon *two;* others (Oken, Cuvier, and Fries) upon *four;* others (MacLeay and Vigors) upon *five;* and others upon *seven.*

"The number five," says Kirby, "which Mr. MacLeay assumes for one basis of his system as consecrated in nature, seems to me to yield to the number *seven*, which is consecrated both in nature and scripture. Metaphysicians" [Paley]† "reckon *seven* principal operations of the mind; musicians *seven* principal tones of music; and opticians *seven* primary colours." ‡ For this we may also give the great *Class*-ical authority of Linnæus, who, we are told, if he had lived, intended to extend his five-fold division of classes, orders, genera, species, and varieties derived from the number of the human toes and fingers to *seven*, by adding legions and tribes, because the world was created in seven days. Locke mentions a musician of a similar cast of mind, who was of opinion that the world was created in seven days, because there are *seven* notes in music!!!§ The Israelites indeed were commanded to reckon time by sevens in memorial of the creation,‖ and all the commentators from Philo, Cyprian, and the venerable Bede, down to Daubuz, Faber, and Penn, agree that the Hebrew

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* Linn. Trans. xiv. and Zool. Journ. ii. 392, et seq.

† Paley's Lectures, MSS. ‡ Int. to Entomol. iii. 15, Note.

§ Quoted in Brown's Lect. on Philos. i. 172.

‖ Woodhouse, Annot. on the Apocalypse, p. 58.

etymology of the word *seven* signifies fulness and perfection.* We accordingly read of "the *seven* churches," "the *seven* golden candlesticks," the "lamb with *seven* horns," the "*seven* animals," "the *seven* spirits of God," &c. From this source, indeed, it is probable that Pythagoras, who studied in Egypt and Phœnicia,† derived his opinion that the number seven was "venerable, perfect, and accommodated to things sacred."‡ But with all these authorities in its favour, and hundreds more which could easily be mustered, Mr. MacLeay says, "the idea of this number is, however, immediately laid aside, on endeavouring to discover seven primary divisions of equal degree in the animal kingdom;§" one reason, among many others, which would make me reject his number *five*, or any other invariable number, inasmuch as there has been shown nothing to warrant this in nature. To use the words of Mr. Mac Leay, "the interests of science, and that love of truth which every scientific man ought to possess, require that we should not allow ourselves to be dazzled by the seeming simplicity of rules, so far as to overlook the cases where these rules interfere with the evident order of nature."‖ The Quinary system, though lauded as a system, the "groups" of which, as well as "the arrangement of these groups," "are almost mathematically proved to be natural,"¶ appears to me to be no less artificial than any of the numerous other systems erroneously called natural. Mr. MacLeay, speaking of the French systematists, says, that, "by supposing nature to have been absolutely governed by a set of rules, which they themselves laid down, they have done little more by their innovations, than given to the world an additional artificial system"**—a remark which applies, I think, forcibly to the Quinary system. "According to Linnæus,"

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* Το μυστικον τῶν 'απανταχη 'εκκλησιων σημαινων. *Andreas Cæsariensis* on Apoc, ch. i. v. 4. Unum Spiritum dicit Septiformem, quæ est perfectio et plenitudo. Beda on Apocalyp. ch. iv. v. 5. Philo styles the Number Seven, τελεσφορος.

† Porphyrius, Vit. Pythag.; Jamblichus, Vit. Pythag.; and Shuckford, Con. Sacr. and Prof. Hist. Pref.

‡ Woodhouse, Annot. p. 13. § Linn. Trans. xiv. 57, Note.

‖ Horæ Entomologicæ, p. 6.

¶ Dying Struggle, p. 128. See also Annulosa Javanica, p. 1.

** Horæ Entomologicæ, p. 12.

and experience proves him correct, "the false naturalist is he who flatters himself with the idea of having attained the natural method"*—a chimera which, having no existence except in metaphysical logic, can never be found. "When we see nature," says Mr. Vigors, in a most just and manly tone, "thus made to bend to the views of man, it becomes every one to enter his protest, however feeble, against doctrines so pregnant with danger to the views of the student, and so subversive of the sound principles that regulate the science:"† a remark which my readers must perceive applies most markedly to the Quinary system. I have been informed that some of Mr. MacLeay's disciples say the system is quite artificial, while others say it is only a symbolical representation of what may prove to be the natural system. It is with this view, probably, that we are taught the erroneous doctrine, that "the investigation of nature has ceased to be a mere work of observation: the mind becomes as much employed as the eye."‡ Such an admission will at once save me the trouble of farther objecting; for it would be idle to attempt refuting what is admitted to be *invention* or *fancy*.

Such are some of the many objections, which induce me to oppose the doctrine, and reject the language of types, affinities, analogies, *development*, transition, and quinary circles. Truth, and the benefit of the reader, being my sole object, I have endeavoured to avoid even the shadow of misrepresentation by quoting largely the very words of the systematists; and in all cases, referring to the page from which the quotations are made, that those who are interested, may examine the context of the originals, for which I could not spare room. This, I hope, will repel any charge of garbling, which is so easily and plausibly made in such cases. In order to insure accuracy also, I have sent proofs of these sheets to a number of distinguished scientific and literary men, several of whom are advocates of the system, and I have carefully attended to their corrections and suggestions. Farther, should any error in fact, or in argument, be subsequently proved against me, I

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* Horæ Entomologicæ, pref. p. 18. † Zool. Journ. i. 183.
‡ Linn. Trans. xiv. 398.

will forthwith correct it; and I shall most willingly publish as an appendix, any rejoinder to my objections, or defence of the principles and the language, which seem to me so pregnant with error. I know not in what way I could act with more fairness.

After all, I confess I think the Quinary system furnishes, so far as birds are concerned, a neat, pretty, and elegant mode of arranging the specimens in a circular cabinet, and, till I looked at its principles and its language a little more closely, I had intended to terminate this brief sketch by a systematic table of British Birds, arranged in accordance with this method. But for the reasons above assigned, I think this would be highly injudicious; while instead of conciliating the disciples of the school, they would probably exclaim against it, inasmuch as they cannot always complete their series of affinities, among the birds of one country or district, it being sometimes necessary to go as far as Australia,* or the Antediluvian† ages to fill up a deficiency. Farther, as each collector is usually attached to some peculiar system, I have determined to substitute, instead of such a table, a short catalogue of Naturalists, chiefly those who have attended to birds, arranged according to the character of their productions, by which the student may be somewhat guided in his reading, according to the peculiar bent of his mind. I accordingly make three classes, the *Rudimental*, from whom the alphabet is to be learned; the *Literary;* and the *Philosophic.*

I. Rudimental Naturalists.

Works consisting of descriptive catalogues, chiefly of museum specimens, arranged systematically; including either whole classes or particular groups of animals, the latter termed *Monographs*, and only useful to aid the student in identifying specimens by form, colour, and structure, commonly omitting historical and philosophical details, and rarely like the beautiful accounts of the British swallows, which White of Selborne called by the now

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* Vigors in Linn. Trans. vol. xiv, p. 409. † MacLeay, Ibid, vol. xiv. p. 54.

abused title of Monograph. Such works, particularly the monographs, often deal in critical disquisitions about names, divisions, and the particular place a species, genus, or group ought to occupy in the system adopted; exhibiting, in many instances, passages of worthless trifling, undeserving of perusal. Examples of what I mean may be found in the Bulletin des Sciences Naturelles, for January, 1829, page 126, and throughout the Zoological Journal.

Albin.—*Natural History of Birds*, 3 vols. 4to, London, 1738.

Atkinson.—*A Compendium of Ornithology*, 8vo, London, 1820.

Bechstein.—*Ornithologisches taschenbuch.*

Belon.—*L'Histoire de la Nature des Oyseaux*, Fol. Paris, 1555.

Blumenbach.—*Manual of Natural History*, by Gore, 8vo, London, 1825.

Bonaparte.—*Synopsis of the Birds of the United States.*

Brisson.—*Ornithologie*, 6 vols. 4to, Paris, 1760.

Cuvier.—*Le Régne Animal*, 5 vols. 8vo, Paris, 1829.

Donovan.—*Natural History of British Birds*, 10 vols. 8vo, London, 1799—1816.

Drapiez.—*Resumé d'Ornithologie*, 18mo, Paris, 1829.

Edwards.—*Natural History of Birds*, 7 vols. 4to, London, 1763.

Faber.—*Prodromus des Islandischen Ornithologie*, Copenhagen, 1822.

Fabricius.—*Fauna Groenlandica*, 8vo.

Fleming.—*British Animals*, 8vo, Edinburgh, 1828.

Gerardin.—*Tableau élémentaire d'Ornithologie*, 2 vols. 8vo, Paris, 1822.

Gmelin.—*Systema Naturæ*, Car. Linn. 8vo, Lipsiæ, 1783.

Griffith.—*Animal Kingdom* from Cuvier, 8vo, London, 1829—30.

Illiger.—*Prodromus Mammalium et Avium*, 8vo, Berlin, 1811.

Klein.—*Historiæ Avium Prodromus*, 4to, Lubecæ, 1750.

Latham.—*Index Ornithologicus*, 4to, London, 1790.

Lesson.—*Manuel d'Ornithologie*, 2 vols. 18mo, Paris, 1828.

Lewin.—*Birds of Great Britain*, 7 vols. 4to, London, 1789, &c.

Linnæus.—*Systema Naturæ*, 3 vols. 8vo, Edit. 12, Holmiæ, 1766; *Fauna Suecica*, 8vo, Holmiæ, 1746.

Low.—*Fauna Orcadensis*, 4to, Edinburgh, 1813.

Meyer.—*Taschenbuch der Deutschen Vögelkunde.*

Naccari.—*Ornitologia Veneta*, Treviso, 1823.

Pulteney.—*Catalogue of the Birds, &c., in Dorsetshire*, London, 1799.

RAY.—*Synopsis Methodicum Avium*, 8vo, London, 1813.
SAVI.—*Ornitologia Toscana*, 1827.
SHAW.—*General Zoology*, 8vo, London, 1800—1324.
TEMMINCK.—*Manuel d'Ornithologie*, 2 vols. 8vo, Paris, 1820.
TURTON.—*British Fauna*, 12mo, London; *General System of Nature* from Linnæus, 7 vols. 8vo, London, 1806.
VIEILLOT.—*Galerie des Oiseaux*, 2 vols. 4to.
WALCOT.—*Synopsis of British Birds*, 4to, London, 1789.
WERNER.—*Atlas des Oiseaux*, 8vo, Paris, 1829.
WILLUGHBY.—*Ornithologia*, fol. London, 1676.

II. LITERARY NATURALISTS.

Works consisting of notices and details, sometimes, though less frequently, derived from the observation of living nature than from closet reading; but often highly interesting and valuable, though very commonly sprinkled with inaccuracies.

ALDROVAND.—*Ornithologia*, 3 vols. fol. Bononiæ, 1646, and Francofurti, 1610.
BEWICK.—*British Birds*, with figures engraved on wood, 8vo, Newcastle, 1797.
BINGLEY.—*Animal Biography*, 4 vols. 12mo, London, 1824.
BUFFON.—*Histoire Naturelle des Oiseaux*, 4to, Paris, 1770, 18mo, Paris, 1779.
FORSTER.—*Natural History of the Swallow Tribe*, 8vo, London, 1817.
GESNER.—*Historia Animalium*, fol. Francofurti, 1585.
GOLDSMITH.—*Animated Nature*, 8 vols. 12mo, London, 1791; and 4 vols. 8vo.
GOOD.—*Book of Nature*, 3 vols. 8vo, London, 1826.
GRIFFITH.—*Animal Kingdom*, 8vo, London, v. y.
HILL.—*New System of Natural History*, 3 vols. 8vo, Edinburgh, 1792.
JENNINGS.—*Ornithologia*, 12mo, London, 1826.
JONSTON.—*Historia Naturalis de Avibus*, Amstelædami, 1657.
LATHAM.—*General History of Birds*, 10 vols. 4to, Winchester, 1828.
MUDIE.—*British Naturalist*, 2 vols. 12mo, London.
PENNANT.—*Arctic Zoology*, 2 vols. 4to, London, 1784; and *British Zoology*, 4th edit. 8vo, London, 1776.

PLINY.—*Naturalis Historia*, 3 vols. 18mo, Lugd. Bat. Elzevir, 1635; Englished by Holland, fol. London, 1634.

III. PHILOSOPHIC NATURALISTS, AND ORIGINAL OBSERVERS.

Works consisting of personal observations on the habits, character, or physiology of living animals, and inquiries into the causes and reasons of what is observed, for the purpose either of supporting theories, (often fanciful,) or of illustrating the providential wisdom of the great Creator. It is to be noted that philosophical naturalists are often no less deficient in a knowledge of systematic catalogues, than the rudimental naturalists are of philosophy;—both are important to be known.

ADAMSON.—*Voyage to Senegal*, 8vo, London, 1759.
AIKEN.—*Letters to a Son*, 2 vols. 8vo, London, 1806.
ANDERSON.—*Recreations*, 4 vols. 8vo, London, 1799.
ARISTOTLE.—Περι Ζωων Ιστοριας, 2 vols. 4to, Paris, 1783. *History of Animals*, by Taylor, 4to, London.
AUDUBON.—*Ornithological Biography*, 8vo, Edin. 1831.
AZZARA.—*Voyage*, par Walckenaer, 4 vols. 8vo, Paris, 1809.
BACON.—*Sylva Sylvarum*, by Rawley, fol. London, 1664.
BELON.—*Observationes*, fol. Raphelengi, 1605.
BLACKWALL.—*On the Cuckoo*, Manchester Transactions, 1824.
BLAINVILLE.—*Organization des Animaux*, 8vo, Paris, 1822.
BLUMENBACH.—*Comparative Anatomy*, by Lawrence and Coulson, 8vo, London, 1827. *Physiology*, by Elliotson, 8vo, London, 1828.
BONAPARTE.—*American Ornithology*, 3 vols. 4to, Philadelphia, v. y.
BONNET.—*Comtemplation de la Nature*. Œuvres, 28 vols. 12mo, Neuchatel, 1779.
BORELLI.—*De Motu Animalium*, Lugd. Bat. 1710.
BOSTOCK.—*Elementary System of Physiology*, 3 vols. 8vo, London, 1827.
BREE.—Contributors to several Periodicals.
CARUS.—*Physiology*, by Gore, 4to, London.
CUVIER.—*Leçons d'Anatomie Comparée*, 4 vols. 8vo, Paris, 1799; by Ross, 2 vols. 8vo, London, 1802.
DARWIN.—*Zoonomia*, 4 vols. 8vo, London, 1801.
DAVY.—*Salmonia*, 12mo, London, 1830.
DERHAM.—*Physico Theology*, 2 vols. 12mo, London, 1792.

DUMAS.—*Principes de Physiologie*, 8vo, Paris, 1800.
ELLIOTSON.—*Notes to Blumenbach's Physiology.*
FLEMING.—*Philosophy of Zoology*, 2 vols. 8vo, Edinburgh, 1822.
FLOURENS.—*Systeme Nerveux*, 8vo, Paris, 1824.
FRISCH.—*Vorstellung der Vögel*, fol. Berlin, 1734.
GALEN.—*De Usu Partium*, Opera, 5 vols. fol. Venet. 1586.
GALL.—*Sur les Fonctions du Cerveau*, 6 vols. 8vo, Paris, 1822—1825.
GRAHAM.—*Birds of Scotland*, 12mo, Edinburgh, 1806.
GREGORY.—*Comparative View*, 12mo, Edinburgh.
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These lists have no pretension to be perfect; they are only intended as a rough sketch, which I hope my readers may find useful. I may further mention, that I have not examined all these works with equal care: some of them, indeed, I have studied thoroughly, while I have only glanced over the pages of others. It would require more room than I can here spare, to give a more minute Bibliography of Birds.

James Rennie.

Lee, Kent, May 12, 1831.

The Aberdevine and Nest.

ABERDEVINE (*Carduelis spinus*, CUVIER.)

* *Belon*, Oyseaux, p. 354.—*Gesner*, Aves, 1.—*Aldrovand*, Aves, 1. p. 352.—Fringilla spinus, *Linn.* Syst. 1. p. 322. 25.—Faun. Suec. No. 237.—*Gmel.* Syst. 1. p. 914. sp. 25.—*Lath.* Ind. Orn. 1. p. 452. sp. 65.—*Scopoli*, 1. No. 212.—*Brunn.* pp. 261, 262.—*Muller*, p. 256.—*Kramer*, p. 366.—*Frisch.* t. 11. *Georgi.* p. 174.—*Klein*, 94. et *Stem.* 20. p. 18. 4.—*Borowsky*, 3. p. 142.—Faun. Helv. *Gerin.* 4. p. 361. 2.—Ligurinus, *Raii*, Syn. p. 9. A. 5.—*Will.* p. 192. t. 46.—*Bris.* 3. p. 65. Roman Orn.—Le Tarin, *Buf.* Ois. 5. p. 221.—*Ib.* pl. 485. f. 3. male.—*Sepp. Vogelen*, t. p. 138.—Gros Bec Tarin, *Temm.* Man. d'Orn. 1. p. 371.—*Gerard*, 2. p. 109.—*Roberts, Bouget*, p. 227. Lucarino, *Olina*, Uccel. p. 17.—*Cetti*, Uccel. Sardin, p. 214.—Siskin or Aberdevine, Br. Zool. No. 129.—Arct. Zool. 2. p. 243.—*Will.* by *Ray*, p. 261.—*Albin.* 3. t. 76.—Song Birds, p. 83.—*Lewin's* Br. Birds. 2. t. 82.—*Lath.* Syn. 3. p. 289. 58.—*Mont.* Supp. to Orn. Dict.—*Bewick's* Br. Birds, p. t. 167.—*Shaw's* Zool. 9. p. 167. t. 79. copy from Bewick.—*Bolton*, Harm. Rur. p. 26.—*Syme*, p. 177.—*Flem.* Br. Anim. p. 85.—*Charlotte Smith's* Hist. of Birds, 2. p. 63.—*Jennings*, Orn. p. 233.—*Collins*, Birds, pl. 8. f. 8. 6.—*Walc.* Birds, pl. 220.—*Lath.* Gen. Hist. 6. p. 82. *Markham*, Linn. Trans. 1. p. 120.

THE Aberdevine nearly resembles the canary termed the green variety, only it is a little less, the tail being rather shorter in pro-

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* The matter not contained in the first edition of Montagu's Dictionary, will be distinguished by an asterisk at beginning and end.

portion. Size of the redpole, *(Fringilla linaria,)* or between that and the linnet. Length rather more than five inches; bill reddish-white, tipped with blackish-brown; eyes, umber-brown; head, greenish-black; over each eye a pale streak of dingy primrose-yellow; neck, back, wings, and tail, oil-green; paler, and more yellow, on the lower parts of the back towards the tail-coverts. The feathers of the back and wings are streaked down the middle with a tint formed of blackish-green and hair-brown; sides of the head, throat, breast, and under parts, pale wax-yellow, inclining to sulphur-yellow; middle of the parts below the breast very pale wine-yellow, passing into white; across each wing are two bands of primrose-yellow, and between them one of black; part of the quills and tail edged with pale gamboge-yellow; legs and feet pale flesh-red. The head of the female is of a brownish-colour, inclining to grey where the male is black; cheeks and sides of the neck siskin green or oil green; and all the rest of her plumage is of a more dingy colour than in the male.

Siskins, says Syme, though not equal to canaries as song-birds, yet bring as high prices, because bird-fanciers are always anxious to possess them, for the purpose of pairing them with canaries. They are healthy, mild, and docile birds; and when paired with canaries, their progeny generally inherit the same good qualities, and therefore they are highly prized by amateurs. Besides, no other bird pairs so readily with the canary; whether it be the hen siskin with the cock canary, or the cock siskin with the hen canary, the male and female of each species pair equally well. This is not the case with the goldfinch, chaffinch, or linnet: it is only the males of these birds that pair with the hen canary: and this leads Mr. Syme to think, that, if the siskin is not the wild canary, or stock-bird, it is a species that approaches so close to it as almost to appear only a marked or distinct variety. These birds are common in Europe, though rather rare with us, and said to be only winter visitors. Their true habitation appears to be the North of Europe.

Montagu, in his Supplement, says, that, in the month of December, 1805, a small flock of these birds were seen, busy in extracting the seed from the alder trees in the south of Devon; several of which were shot. The weather was severe, and a heavy fall of snow succeeded. Bewick tells us, that one, which he kept many years in a cage, had a pleasing and sweetly-varied song, and that it imitated the notes of other birds: it was caught on the banks of the Tyne. About London, the Siskin is called the Aberdevine by bird-catchers, who occasionally take a few of these birds. In all places they are migratory,

but irregular in their migrations. In the winter of 1820 and 1821, considerable flocks of these birds visited Northumberland. During their stay they fed upon the seeds of the alder *(Alnus glutinosa)* and the birch. In 1824, Dr. Fleming received a male and a female, shot from a flock in the first week of April. In Germany they appear about October, when they do a great deal of damage to the hop plantations; and the places where they have been are easily known by the number of leaves that are found lying on the ground. They visit France during the vintage, and even earlier in the year, when they injure the blossoms of the apple-trees: they also eat the seeds of burdock and elm. Buffon says, that "immense flocks of these birds appear every three or four years." They are said to fly very high, and may be heard before they are seen. It is curious, that their nests are so rarely found; nor is it certain where they breed, but it is supposed to be in mountainous forests.

Kramer remarks, that on the banks of the Danube, thousands of young siskins are seen, which have not yet dropped their nestling feathers. These birds surely must have been bred there, or at least not far distant. Sepp has delineated the nest placed in the cleft of an oak, built with dry bent mixed with leaves, and amply lined with feathers; the base being neatly rounded, and the feathers projecting above the brim and concealing the eggs. The eggs, three in number, are of a dull white. Selby describes the eggs as bluish-white, speckled with purplish-red. Temminck says, it builds in the highest branches of the pine, which accounts for its having escaped the researches of the earlier naturalists. I recollect, when a boy, meeting with a nest answering to these descriptions on the top of a Scotch-fir, about twenty feet high, at Catringe Shaw, in Ayrshire, and nobody could tell the species. These birds are of so mild, gentle, and docile a disposition, that they become quite tame almost immediately after they are taken. They may be taught many pretty tricks, such as to open the door of their cage, draw up their food and water, and come to the hand to be fed at the sound of a little bell or a whistle. Their food is the same as that of canaries, and they are managed in the same manner.*

ABERDEEN SANDPIPER.—A name for the Knott.

ACCENTOR (Bechstein.)—*The Chanter, a genus characterised by the beak being of middle length, strong, straight, and drawn to a very fine point; the edges of the two mandibles compressed, the upper notched towards the point. Nostrils at the base, naked, pierced in a large membrane. Legs strong; three toes before and one behind; the outer one joined at its base to the middle toe; the claw of the hinder toe longest and most arched. Wings, with the first quill very short, and

the second nearly half as long as the third, which is the longest. The hedge-chanter *(A. modularis)* is the only British species of the genus.*

ACCIPITER (Auctores.)—*A genus of the falcon family thus characterised. Bill short. Nostrils somewhat oval. Shanks elongated and smooth. Shins plated with scales, the sutures scarcely perceptible.—Vigors.*

ACCIPITRES (Linnæus.)—*Birds of prey, the first of the Linnæan orders, corresponding with the *Rapaces* of Temminck, and the *Raptores* of Illiger.*

AFRICAN HERON.—A name for the Purple Heron.

AILSA COCK.—A provincial name of the Puffin.

AIR CELLS OF BIRDS.—*The lungs of birds have several openings, communicating with corresponding air-bags or cells, which fill the whole cavity of the body from the neck downwards, and into which the air passes and repasses, in the process of breathing. This is not all: the very bones of birds are hollowed out with the design of receiving air from the lungs, from which air pipes are conveyed to the most solid parts of the body, and even into the quills and plumelets of the feathers, which are hollow or spongy for its reception. As all these hollow parts, as well as the cells, are only open on the side communicating with the lungs: the bird requires only to take in a full breath to fill and distend its whole body with air, which, in consequence of the considerable heat of its body, is rendered much lighter than the air of the atmosphere. By forcing this air out of the body again, the weight becomes so much increased, that birds of large size can dart down from great heights in the air with astonishing velocity. The structure of insects is not a little analogous.[1]

ALAUDA (Linnæus.)—*The Lark, a genus thus characterised. Bill somewhat conical, short, with the mandibles of equal length, the upper slightly convex; nostrils at the lateral base of the bill, oval and partly concealed by small reflected feathers. Feet with three toes before and one behind, the anterior ones entirely divided, and the claw of the hind toe very long and nearly straight. Wings with the first quill very short or wanting, and the third longest; greater coverts, in most instances, shorter than the quills; feathers on the crown generally long and capable of being raised like a crest.

The British species are the Sky-Lark and the Wood-Lark; the Pipet-Lark (*Anthus*) is now separated from the genus.*

ALCA (Linnæus.)—*The Auk, a genus thus characterised. Bill

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[1] See Insect Transformations. Page 334.

straight, broad, compressed, much curved towards the point, both mandibles half covered with feathers, furrowed towards the point, the upper crooked, the under forming a projecting angle; nostrils towards the middle of the sides of the bill, narrow and almost shut by a membrane covered with feathers. Legs short, drawn back towards the belly; only three toes placed forward, and wholly webbed. Claws a little pointed. Wings short; the first quill either as long or a trifle longer than the second.

There are only two British species, the Razor-bill (of which the Black-billed Auk is the young,) and the Auk *(Alca impennis.)**

ALCADÆ (Vigors.)—*Birds of the Auk kind.*

ALCEDO (Linnæus.)—*The Kingfisher, a genus thus characterised. Bill long, straight, quadrangular, thick, and pointed; tongue fleshy, short, and armed at the point. Nostrils at the side of the base, pierced obliquely, and nearly closed by a naked membrane, Legs with the shank short, and three toes forward, the outer toe joined to the middle one, as far as the second joint; the inner one the same as far as the first joint, and with one hind toe broad at the base. Wings with the first and second quills nearly equal, but shorter than the third, which is the longest in the wing.*

ALECTORIDES (Temminck.)—*A group comprising the Pratincole.*

ALK.—A provincial name for the Razor-bill.

ALLAMOTTI.—A provincial name for the Petrel.

ALLAN.—A provincial name for the Dung-hunter *(Lestris parasiticus*, Temm.)

ALP.—A name for the Bull-finch.

AMPELIS (Linnæus.)—*The Chatterer, a genus from which Temminck has separated the only British species,—the Bohemian Waxwing *(Bombycivora garrula*, Temm.)*

AMZEL.—A name for the Blackbird.

ANAS (Auctores.)—The Duck, a genus thus characterised. Bill middle size, strong, straight, more or less depressed, covered with a thin skin, often more raised than broad at the base, which is either furnished with a fleshy substance or quite smooth, always depressed towards the point, which is rounded, blunt, and clawed, margins of the two mandibles toothed with plates, or either a flat or conical form. Nostrils almost at the surface of the bill, at some distance from the base, somewhat oval, half closed by the flat membrane which lines the nostril. Legs short, feathered to the knees, drawn back towards the belly; three toes before, wholly webbed; hind toe

free, articulated higher up on the flank, without a membrane, or having only the rudiments thereof. Wings of middle size; the first quill either as long as the second or rather shorter.

Temminck divides the genus into four sections. 1. The Goose; 2. The Swan; 3. The Duck. A. Ducks having the hind claw naked. B. Ducks having the hind claw covered with a loose membrane.*

ANATIDÆ (Leach.)—*Birds of the Duck, Goose, and Swan kind.*

ANNET.—A provincial name for the Kitty-wake.

ANORTHURA (Rennie.)—*Wren, a genus thus characterised. Bill slender, slightly compressed, notched, curved or rarely straight. Nostrils at the sides of the base, oval, and half covered by an arched and naked membrane. Wings short, rounded, having the first quill very short, the second considerably shorter than the third: the fourth and fifth are of equal length, and the longest in the wing. Tail short, rather rounded and carried erect. Legs strong: shank of the same length as the middle toe. Toes three before and one behind. The outer toe joined at its base to the middle one; the outer and inner being equal in length.

I have thought it expedient to substitute a new name for this genus, instead of the received one, *Troglodytes*, which is taken from a false notion that the Wrens live in caverns, as the ancient people named *Troglodyta*, are recorded to have done.[1]

ANSER (Ray.)—*The Goose, a genus thus characterised. Bill shorter than the head, a little conical, as are the marginal denticulations. Neck of a middle length.*

AQUILA (Auctores.)—*The Eagle, a genus thus characterised. Bill somewhat angular above. Nostrils rounded. Ceroma somewhat hispid. Shanks feathered to the toes.—Vigors.*

ARCTIC-BIRD.—A name for the Dung-hunter.

ARCTIC GULL.—The name in the former edition for Dung-hunter.

ARDEA (Linnæus.)—*The Heron, a genus thus characterised. Bill long, or as long as the head, strong, straight, compressed, in a lengthened cone, cutting sharp, upper mandible slightly channeled, ridge rounded. Nostrils on the side almost at the base, slit lengthwise in the groove, and half shut by a membrane. Eyes with a naked circle around them extending to the bill. Legs long, slender; a space above the knee more or less naked. Of the three fore toes, the middle one is

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[1] See Wren.

united to the outer by a short membrane, the inner divided; the back toe articulated interiorly, and upon the same level with the others. Claws long, compressed, sharp; the middle one being denticulated on the inside. Wings of middle size, the first quill a little shorter than the second and third, which are the longest in the wing.

The genus is divided by Temminck into two sections;—the genuine Herons and the Bitterns.*

ARDEIDÆ (Vigors.)—*Birds of the Heron and Bittern-kind.*

ASH-COLOURED FALCON (*Circus cinerarius*, Vigors.)

* Falco cinerarius, *Mont.* Dict. and Supp.—Trans. Linn. Soc. 9. p. 188.—Circus cinerarius, *Vigors*, Zool. Journ.—Busard Montagu, *Temm.* 1. p. 76.—Die Halbweihe, *Naumann*, Vogel, 4. p. 180. T. 21.—Ash-coloured Falcon, *Mont.* Orn. Dict. & Supp.—Ash-coloured Harrier, *Selby*, N.11. and N. P. 28.

*In a paper published in the Linnæan Transactions, Montagu thus describes a specimen of this bird, killed on the 10th of August, 1803, near Kingsbridge, in Devonshire. It weighed nine ounces and three quarters: length eighteen inches: breadth three feet eight inches and a half: the length from the elbow to the end of the third quill feather (which is the longest) fifteen inches and a half: length of the tail, from the gland on the rump, nine inches and a half. Bill black, the base and cere greenish: irides and orbits bright yellow: crown of the head, cheeks, throat, under part of the neck, back, and scapulars cinereous-brown; the feathers of the last are cinereous at their base, with the tips brown: the smaller coverts are marked the same as the scapulars: the greater coverts are also cinereous-brown, the exposed part of each feather darkest, but not tipped like the others: the eight prime quills are dusky-black, the last with a dash of cinereous; the first is very short, the third by far the longest: secondary quills cinereous-brown above, pale beneath, with three remarkable dusky bars, traversely placed, and nearly in parallel lines, each half an inch in breadth; in some of these feathers when separated from the wing, the rudiment of a fourth bar is observable at the base; but of these three or four bars only one is visible on the upper side of the wing, the others being hid by the coverts; this is about two inches from the tips of the feathers; on the under part of the wing two bars are very conspicuous, the others are paler and hidden by the smaller under coverts, the first row of which is white, with a large dusky bar across the middle; the rest are bright bay, more or less spotted, barred, or margined with white: the under parts of the body, including the under tail coverts and thighs, white, with a broad streak of bright bay down the shaft of each feather: under scapulars with broad alternate bars of bay and white: the tail is

a trifle cuneiform, the two middle feathers dusky-brown, the rest dark ash-colour, palest on the two or three outer feathers, which have their inner webs approaching to white; all except the two middle feathers have five equidistant bars on the inner web, taking in the shaft; these bars on the two outer feathers are bay, the rest more or less dusky, with a ferruginous tinge on those at the base: legs orange-yellow, rather long and slender: claws small, and black.

The bird from which this description is taken is a male, proved to be so by the unerring rule of dissection. He had the feathers behind the ears short, but no ruff continued round the head so conspicuous as in the hen-harrier. He was in good condition, and in his stomach was a sky-lark, and yet his weight was not so much as that of the hen-harrier by three or four ounces; though his length and breadth were much superior, by reason of his longer wings and tail. It must also be remarked that he cannot be a young bird, as some of the quills are moulting; the first and second feathers of the secondary quills in each wing are not full grown, but are of the same colour as the rest, and possess the same bars.

On the 23d of May, in the year 1808, says Montagu, we observed one of these birds in South Devon, skimming over a patch of furze very near; and noticed that it repeatedly dropped into the same spot, after having pitched on the bare ground at some distance; but could not observe whether it was preparing a nest or not. At the same time we noticed a large brown hawk floating over another piece of furze at a little distance. This had much the appearance of the ringtail, but appeared longer in the wings, which gave a suspicion that these were actually the two sexes of the ash-coloured-falcon; and which seems to be confirmed by subsequent events.

Mr. Tucker, while looking over our museum, had this bird pointed out to him, and was asked if he had ever seen it. To which he replied that he thought he had, but had probably mistaken it for a variety of the hen-harrier. In a short time after Mr. Tucker sent us one of the secondary quill feathers of this bird, which was then in his possession, and informed us that both sexes of this species were shot in that summer (1808) from the nest, by the gamekeeper of Mr. Templer, of Stover, in Devonshire, and that three young ones were also taken at the same time. All these had been nailed up against the garden wall, and were considered as the hen-harrier, with his female the ringtail, and their offspring; the male of which had been previously taken down by Mr. Tucker as a variety of the hen-harrier, before we had pointed out to him the distinction.

It would have been a most desirable object to have obtained the female, but unfortunately we were too late; it was totally destroyed. There was, however, no longer any doubt that the colour of that sex was brown, not very unlike the general appearance of the ringtail, having been taken for such by Mr. Tucker, upon a cursory view, when he took down the male.

But it is singularly fortunate that in the same year Mr. Tucker should himself take a nest of this obscure species with young, which he attempted to rear, under the idea that they were hen-harriers.

The nest was discovered in the month of July, on the ground, amongst furze, containing three young birds and an addled egg, which last was white. Two of the young hawks continued alive till the summer of the following year, and were evidently, from their disproportionate size, of different sexes. About the beginning of August they began to moult, plainly discovering that they were not hen-harriers as before suspected, but actually the birds in question. Unfortunately at this most interesting conjuncture, the female made her escape before she had nearly completed her mature plumage, and the only part we could obtain of her was an outer feather of the tail that had been broken off, and was evidently of recent growth by not being completely expanded at the base. This feather has five bars of ferruginous, with alternate rufous-white on both webs; towards the end, the dark bars incline to dusky.

In the latter end of November the male was by some accident killed in the middle of his moulting, when assuming the feathers of maturity, and was in a mutilated state sent to us for examination; the description of which is as follows.

The head, neck, part of the scapulars, and most of the lesser coverts of the wings, still possess the nestling brown feathers, which are similar to those of the immatured male hen-harrier, or the adult ringtail; but the ferruginous-brown is brighter, and more inclining to dull orange: all the smaller feathers upon the under part of the wings are bright ferruginous, differing most essentially in colour from that part of the hen-harrier of either sex, or in any state of change, and which in the adult male of that species is invariably white. The under scapulars on one side are similar to those of the adult, elegantly barred ferruginous and white; but on the other side these feathers have not been changed, and are plain ferruginous: the under parts of the body and thighs are nearly matured, being white, and possessing the bright ferruginous streaks down the shafts of the feathers: the quills, and the greater coverts, are mostly matured, but a few of the nestling feathers

remain, which strongly, and most interestingly mark the distinction, particularly two or three of the secondaries, which are destitute of the dusky bars, and are of an uniform chocolate-brown, darker than those on the young hen-harrier: the tail is much mutilated, but the remains of the old feathers are in appearance barred much like those of the adult; the outer feathers with bright ferruginous and white, the others with ferruginous bars at the base; but the third feather is new, and nearly full grown, on which there are five dark, and five pale bars alternate; the three lower dark bars mixed with ferruginous, the other two are dusky, and the light bars which are white at the base, become cinereous towards the end, and the point, with the margin of the outer web, are also cinereous: the greater coverts of the tail are white, similar to those of the ringtail, or young hen-harrier, but tipped with cinereous.

The premature loss of these young hawks was rather unfortunate; however, little more could have been attained by them, since enough had been observed of the change of the female to shew there was little or no alteration in the markings of the plumage; and it had been seen that both sexes were similar in their first feathers. But to put the matter beyond all doubt, another nest was found by Mr. Tucker in the following summer, very near the place where the young had been taken the preceding year; in which there were also three young birds and an addled egg. The nest was placed, like the last, amongst furze, upon a hill near Ashburton; from which two young ones were taken and the female shot. The latter we had not an opportunity of examining, so that the exact weight and measurement were not ascertained; but with regard to plumage, we were informed that no difference existed between the female and the two young birds, which last were only known to be of different sexes by the superior size of the female, and by the tint of the irides, which in that sex are at first dusky, but in the male are of a pale colour. The colour therefore of these hawks in their first plumage, like the hen-harrier, exactly resembles the female till after the first moulting, and therefore cannot in any of its changes be mistaken for either sex of that bird, now the complete description of this species is obtained in both its primary and adult plumage. Upon the authority of Mr. Tucker we shall consider the plumage of the adult female to be exactly similar to that of the young, and shall therefore substitute a description taken from a young male on the 14th of November, with which bird, alive, Mr. Tucker favoured us, having been taken from the nest about five months.

The bill dusky: cere yellow: irides so pale a yellow as to appear

nearly white. The whole upper part of the head ferruginous, with small dusky spots; on the hind head, and nape, a broken patch of white; immediately above and beneath the eye is a pale streak; the coverts of the ears, extending down to the lower mandible, are dark chocolate-brown: the feathers on the whole upper parts of the body, including the scapulars, are dark chocolate-brown: the quills the same; the first three or four, pale ferruginous about the middle of the inner web; the secondary quills the darkest, and all more or less tipped with ferruginous, except on the upper part of the back; and those on the back of the neck are deeply margined with that colour: the lower part of the rump, and coverts of the tail, white, with a few streaks of bright ferruginous: the lesser coverts of the wings are deeply margined with ferruginous: the chin is dusky-brown: the whole under parts, from chin to vent, including the thighs, under tail-coverts, and under coverts of the wings, bright ferruginous without spot, except the shafts being somewhat darker, appearing on close inspection like fine slender streaks: the tail feathers have five alternate darker, and five paler bars, but the upper ones are nearly obsolete; these bars on the outer feather are bright ferruginous and white, with one bar near the end darker; the second is similar, but has the ferruginous bars inclining to chocolate-brown, and the white ones run into pale ferruginous on the outer webs; the three next become gradually darker, with the pale bars less conspicuous, and more ferruginous than white; the two middle feathers have the bars marked only by a shade of difference in colour, and are scarcely defined.

We have been particular in describing this bird in all its stages, in order that it may no longer be confounded with the hen-harrier or ringtail; and after what has been said, it is hardly necessary to remark that the bright ferruginous colour of the markings is always sufficient to discriminate this. In the adult male, these bright markings on the under parts of the body, and under the wings, and the black bars on the secondary quills, (independent of the great difference in the tail,) at once point out the distinction from the male hen-harrier. In the female, the uniform ferruginous colour of all the under parts is sufficient to discriminate it from the female hen-harrier, besides the colours being much brighter: and in the adolescent or changing state of plumage, the same difference exists in markings.

That this bird has been long known, and confounded with the hen-harrier, there can be no doubt, a proof of which is evident by the description of what Mr. Pennant supposed a variety of the ringtail. In describing that bird "the breast and belly, (says Mr. Pennant) are

of a yellowish-brown, with a cast of red, and marked with oblong dusky spots, but they are subject to vary, for we have met with one specimen that had these parts entirely plain."

Here then is an excellent definition of the distinction of the females of the two species, or of the young of both sexes before the first moulting: and, except this remark of Mr. Pennant, we do not find any description that sufficiently accords with either sex of our ash-coloured falcon, to refer to with confidence. Selby says he has taken it in Northumberland, where it breeds in the open moors, but is not plentiful.*

ASH-COLOURED-HERON.—A name for the Night-heron.

ASH-COLOURED-SANDPIPER.—A name for the Knott.

ASH-COLOURED SWAN.—A name for the Gaunt.

ASSILAG.—A provincial name for the Petrel.

ASTUR (Auctores.)—*A genus of the Falcon family, thus characterised. Bill short; nostrils somewhat oval; shanks of middle size; shins plated with scales (*scutellata.*)—Vigors.*

AUK (*Alca*, Linnæus.)—A genus of which two species are British.

AUK (*Alca impennis*, Linnæus.)

Alca impennis, *Gmel.* 1. p. 550.—*Brun.* p. 105.—Faun. Suec. p. 140.—*Muller*, p. 17.—Alca major, *Bris.* 6. p. 85.—Penguin, *Raii*, p. 118.—*Will.* p. 322. 65.—Pingouin brachiptre, *Temm.* 2. p. 939.—Le grand Pingouin, *Buf.* 9. p. 393.—Great Auk, *Penn.* Br. Zool. 2. p. 229, pl. 81.—Arct. Zool. 2. p. 424.—*Bewick*, 2. pl. 162.—*Mont.* Dict. and App.—*Lath.* Gen. Hist. 10. p. 55.

This species appears to have become extremely rare on the north coast of Britain. The natives in the Orkneys informed Mr. Bullock, in his late tour through those islands, that one male only had made his appearance for a long time, which had regularly visited Papa Westra for several years. The female, (which the natives call the Queen of the Auks) was killed just before Mr. Bullock's arrival. The King, or male, Mr. Bullock had the pleasure of chasing for several hours, in a six-oared boat, but without being able to kill him, for though he frequently got near him, so expert was the bird in its natural element, that it appeared impossible to shoot him. The rapidity with which he pursued his course under water, was almost incredible.

The length is three feet. The bill is black, very strong, compressed, and marked with several furrows. The base of the upper mandible is covered with short velvet-like feathers; between the bill and the eye is a large patch of white; the head, neck, back, and wings, glossy black; lesser quill-feathers tipped with white; legs black.

The smallness of the wings renders them useless for flight, the longest quill-feather not exceeding four inches in length. These,

however, are admirably adapted to its mode of life, and are of peculiar use in diving under water, where they act as fins; by which means it pursues its prey with astonishing velocity.

*This bird is only found in the most northern parts of the kingdom; is said to breed in the isle of St. Kilda, from which Dr. Fleming had one in 1822. Like the rest of this genus it lays only one egg, white, sometimes irregularly marked with purplish lines, or blotched with ferruginous and black at the larger end: length six inches. It feeds on fish, but the young birds will eat rose root, (*Rhodiola rosea*) or other plants. Mr. Bullock also informed Dr. Fleming, that an individual was taken in a pond of fresh water, two miles from the Thames, on the estate of Sir William Clayton, in Buckinghamshire. When fed in confinement, it holds up its head, expressing its anxiety by shaking the head and neck, and uttering a gurgling noise. It dives under water, even with a long cord attached to its foot, with incredible swiftness.*

AUSTRIAN PRATINCOLE.—A name for the Pratincole.

AVES (Linnæus.)—Birds; the second class of the animal kingdom in the Linnæan System.

AVOSET (*Recurvirostra*, Linnæus.)—A genus of which only one species is British.

AVOSET (*Recurvirostra Avocetta*, Linnæus.)

Linn. Syst. p. 156. 1.—*Gmel.* Syst. 2. p. 693.—*Bris.* 6. p. 538. t. 47.—*Ib.* 8vo. 2. p. 604.—*Raii*, Syn. p. 117. A. 1.—*Will.* p. 340. t. 60.—*Will.* Angl. p. 123.—L'Avocette, *Buf.* 8. p. 466. t. 38.—Scooping Avocet. Br. Zool. 2. No. 228. t. 80.—*Lath.* Syn. 5. p. 293. 1.—*Ib. Sup.* p. 263. Avocetta.—Ind. Orn. 2. p. 786. 1.—*Don.* Br. Birds, t. 66.—*Lewin*, Br. Birds, 6. t. 202.—*Walc.* Syn, 2. t. 165.—*Pult.* Cat. Dorset. p. 16.—De Kluit, *Sepp.* 1. p. 67.—*Temm.* 2.—*Flem.* Br. Anim. p. 101.

The length of this species to the end of the tail is eighteen inches, to the end of the toes twenty-two: weight thirteen ounces. Bill black, flexible like whalebone; irides dusky. The upper part of the head, and half the hinder part of the neck, black; the cheeks and whole under parts of the bird are pure white; outer scapulars, middle coverts of the wings, and greater quill-feathers, black; the ridge of the wings, greater coverts, back, and tail, white; legs bluish grey; toes webbed about half their length.

The Scooper is the only species found in England. It breeds in the fens of Lincolnshire, and on Romney Marsh in Kent. It does not migrate like other birds of similar habits, but is found at all seasons, though in winter it chiefly frequents the sea-shore; and, besides on the coast of Kent, it is found about the mouth of the Severn in Gloucestershire, as well as on the eastern coasts of Norfolk and Suffolk,

and sometimes in Shropshire. During the breeding season, the Avosets are seen in considerable numbers near Fossdike, in Lincolnshire, and also in the fens of Cambridgeshire and similar localities. Temminck says it is common in North Holland. It seems, indeed, to be very widely diffused, being found in Denmark, Sweden, Russia, Siberia, the Caspian Sea, and particularly about the Salt Lakes in the deserts of Tartary. Salerne tells us that it is sometimes seen on the coasts of Picardy, rarely at Orleans, but in such abundance in Bas Poictic, that, during the breeding season, the peasants take the eggs by thousands. Dr. Buchanan informs us that two were wounded on an island in the Hoogly, near Calcutta; and they lived for some time afterwards, being fed with small fish, which they readily scooped up from a pan of water. The singular form of the bill led Buffon, according to his absurd atheistical theory, to suppose it to be "one of those errors or essays of Nature, which, if carried a little further, would destroy itself; for if the curvature of the bill were a degree increased, the bird could not procure any sort of food, and the organ destined for the support of life, would infallibly occasion its destruction." The bill of the Avoset may therefore be regarded as the extreme model which nature could trace, or at least preserve. The modern doctrine of *types* seems to be a legitimate descendant of this nonsense. In winter they assemble in small flocks of six or seven, and frequent our shores, particularly the mouths of large rivers, in search of worms and marine insects, which they scoop out of the mud or sand. It lays two eggs about the size of those of a pigeon, white, tinged with green, and marked with large black spots; it is said to be very tenacious of its young; when disturbed at this season it will fly round in repeated circles, uttering a note that resembles the word *twit* twice repeated.

The feet of this bird seem calculated for swimming, but it has never been observed to take the water for that purpose. We remember one of this species being wounded in the wing, and floating with the tide for near a mile, when it was taken up alive without ever attempting to swim; so that the palmated feet seem only intended to support it on the mud.

AWL.—A name for the Poppinjay.

Babillard and Nest, with the White-throat above.

BABILLARD (*Curruca garrula*, Brisson.)

*Motacilla Dumetorum, *Gmel.* p 1. 985. 31.—Motacilla garrula, *Linn.* Faun. Suec. pp. 254. 235.—Sylvia curruca, *Lath.* Ind. Orn. 2. p. 509. 9.—*Temm.* 1. p. 209.—Curruca garrula, *Bris.* 3. p. 384. 7.—Motacilla curruca, *Gmel.* 1. p. 954. 62.—Curruca Sylviella, *Flem.* p. 71.—*Turton*, Br. Faun. 1. p. 45.—Klapper Grasmücke, *Meyer*, 1. p. 226.—*Frisch*, Vögel, T. 21. 2. A., very correct fig.—*Naum.* T. 34. fig. 70., very correct fig.—La Fauvette Babillarde, *Buf.* 5. p. 135.—Planch. Enlum. p. 580. 3. bad fig.—Bianchetto, *Scopoli*, Ann. 1.—Karuka, *Penn.* Arct. Zool. 2. p. 422. U.—Babbling Warbler, *Lath.* Syn. 4. p. 417.—White-breasted Warbler, *Lath.* Syn. 4. p. 447. 41.—Lesser Whitethroat, *Lightfoot* in *Lath.* Syn. Supp. 185. T. 113.—*Mont.* Orn. Dict. & Supp.—*Atkinson*, p. 89.—*Sweet*, Br. Warbl. 8.—*Penn.* Br. Zool. 1. p. 529. ed. 1812.—*Shaw's* Gen. Zool. 10. p. 599.—*Don.* 4. pl. 86.—*Lath.* Gen. Hist. 7. 47. pl. 105. a very bad fig. of the bird, nest, and eggs,—the nest being like a piece of clay.

As this species has been so strangely confounded by British naturalists with the white-throat, I have been induced to substitute a foreign name for the inappropriate appellation of the lesser white-throat.

Latham has made no less than three species of it, by following, as usual, the blunders in Gmelin's Linnæus; while Buffon, erring in a different way, gives a heterogeneous description of the chiff-chaff, the white-throat, and the hay-bird, (*Sylvia trochilus*), as well as our Babillard, for the same species, confounding the several descriptions of Belon, Aldrovand, Olina, and Schwenckfeld, though all so very distinct to those who know the birds, as Montagu clearly did.*

This species was first noticed as a native by Mr. Lightfoot in Buckinghamshire, and communicated to Dr. Latham, who first gave it to the world as a British species in the Supplement to his Synopsis.

It is less than the white-throat; length five inches and a quarter; weight about three drams and a quarter. The bill is dusky; irides yellowish, with a dash of pearl-colour. The upper part of the head, taking in the eyes, is a dark ash-colour; all the other parts above cinereous-brown; quills and tails dusky, edged with ash-colour; the exterior feather of the tail whitish almost to the base; the outer web quite white; from throat to vent, including the under tail coverts, silvery white; legs dusky lead-colour.

This and the white-throat have doubtless been confounded; nor is it easy to determine which of them is the *Sylvia* of Linnæus. The great distinction between this and the white-throat and its varieties is, that this is inferior in size; the bill is shorter, the under as well as upper mandible is dusky; the legs darker; the whole under parts of the plumage much whiter; and the upper parts do not possess the least appearance of rufous-brown, which in the other is more or less invariably found, especially on the wing coverts. *I may add to this that the leaden or greyish blue colour of this bird was remarked by Belon two centuries ago. The whole breast and belly, as well as the throat, are nearly snow white, while only the throat is greyish white in the white-throat, whose legs are yellowish, in living birds. The legs of the Babillard are greyish black or deep lead colour. The haunts and manners of the two birds are also different; for while the white-throat frequents the tangled hedge-row, the green lane, and the bramble copse, the Babillard prefers a garden, an orchard, or a plantation of gooseberry or currant bushes, whence it is a frequent inhabitant of market gardens near London. The Babillard is also somewhat more shy and wary of showing itself, like the blackcap and the fauvette, (*Sylvia hortensis*), which haunt the same localities. Both are cheerful, spirited, and restless; but the incessant warbling of the species under notice, has obtained it the continental name which we have adopted.*

We observed the arrival of this bird for several years together, in Wiltshire, to be from the twenty-first of April to the tenth of May. It is not uncommon in the north of that county, and is easily discovered by its shrill note, which is scarcely to be called a song, as it is only a repetition of the same whistling note,* (*actch, atsh,* as Bechstein gives it),* several times in a hurried manner; besides which it has a soft pleasing song, not to be heard unless very near. It conceals itself in the thickest hedges, and when the foliage is complete, is very difficult to be shot. In such situations, the nest is placed not very distant from the ground, composed of goose grass, neatly but flimsily put together, with a small quantity of wool, very much like that of the white-throat. The eggs are four or five in number, of a bluish white, speckled with brown and ash colour at the larger end, and sometimes a few distant spots all over; their weight about twenty-five grains.

*The nest from which our figure was taken, was built low in a bramble bush in Kent; but I have seen them, in filbert trees, at several feet above the ground, as well as in the black-thorn, gooseberry, and broom. The goose grass, (*Valantia Aparine,*) figured also in our vignette, seems an indispensable material for the nest, its reversed and close-set short prickles hooking firmly together, and holding fast what seems so flimsy and frail. I have found the eggs vary very much in shade, as well as in marking; Montagu's account of them is as near as a general description could well be given.*

The Babillard does not appear to be a plentiful species in this country, and is confined to the western parts of the kingdom, from Gloucestershire and Wiltshire, in both which counties we have found them, and is probably in part of Somersetshire, but not in Devonshire or Cornwall. *Selby even doubts its existence; but Sweet has kept them in a cage for years.*

In some seasons it is very plentiful about London; at other times much scarcer. I am confident I have seen it in Ayrshire, and at Musselburgh Haugh, near Edinburgh.

BALBUSARDUS.—*A name for the Osprey, adopted by Fleming for a new genus.*

BALD BUZZARD.—A name for the Osprey.

BALD COOT.—A provincial name for the Coot.

BALD GOOSE.—A name for the Laughing Goose.

BANK SWALLOW (*Hirundo riparia,* Linnæus.)

* Hirundo riparia, *Linn.* Syst. 1. p. 344. 4.—Faun. Suec. No. 273.—*Gmel.* Syst. 1. p. 1019.—*Lath.* Ind. Orn. 2. p. 575. 10.—*Raii,* Syn. p. 71. A. 3.—*Will.* p. 156, t. 39.—*Briss.* 2. p. 506.—*Wils.* Amer. Orn. 5. p. 46. pl. 38. f. 4.—L'Hirondelle de Rivage, *Buff.* Ois. 6. p. 632.—*Ib.* Pl. Enl. 543. f. 2. the

young.—*Temm.* Man. d'Orn. 1. p. 429.—Uferschwalbe, *Bechst.* Naturg. Deut. 3. p. 922.—*Meyer*, Tasschenb. Deut. 1. p. 278.—*Frisch*, t. 18. f. 2. A.—Sand Martin, Br. Zool. 1. No. 170.—Arct. Zool. 2. No. 332.—*Albin*, 2. t. 56. 6.—*Lewin's* Br. Birds, t. 125.—*Lath.* Syn. 4. p. 568. 10.—*Will.* (Ang.) p. 213. t. 39.—*Mont.* Orn. Dict.—*Walc.* Syn. 2. t. 253.—*Pult.* Cat. Dorset. p. 13.—*Bewick's* Br. Birds, 1. p. 258.—*Low's* Fau. Orcad. p. 74.—*Shaw's* Zool. 10. p. 104. pl. 11.—*Flem.* Brit. Anim. p. 61.—*Lath.* Gen. Hist. 7. p. 263.—River Swallow, *Griffith's Cuvier.*—Selby, pl. 42. fig. 3. pt. 1. p. 131.

Provincial.—Sand Martin. Bank Martin. Sandy Bank. Sand Swallow.

This is the smallest species of British swallow; length four inches and three quarters. The whole upper parts of the plumage are of a mouse-coloured brown; the under parts white, except across the breast, which is brown; legs dusky, a little feathered behind; bill dusky; irides hazel.

The Bank Swallow is not near so plentiful, and is more local than the other species.

It visits England about the same time as the chimney swallow, resorting only to such places as are convenient for breeding; is frequently seen about rivers, where it makes a nest in the banks, but most commonly in sand-pits, where it can, with more ease, excavate the sand in order to form a secure place for its nest. The holes are generally horizontal, and their depth two or three feet. *Whoever looks at the bill and claws of this bird cannot fail to be convinced that, so far from being "soft and tender," as White of Selborne alleges,[1] they are more than commonly hard and sharp, and admirably adapted for digging. The bill, I admit, is small, but its very shortness adds to its strength, as it suddenly tapers to a point like a sailor's marlin spike, or rather like the points of a pair of fine compasses when shut. If I compare this little sharp borer, as I may well call it, with the caliper-like mandibles of the sand-wasps, (*Sphecidæ*, Leach,) and of the burrowing bee, which, like our swallows, excavate galleries proportionable to their size in hard sand,[2] I am compelled to confess that this bird is furnished with the more efficient instrument. Its operation also is considerably different. The insects alluded to gnaw into the sand, or rather bite off a portion of it and carry it out of the hole in their mouths; but the Bank Swallow, as we have had an opportunity of observing, works with its bill shut.

I have seen one of these swallows cling, with its sharp claws, to the face of a sand bank, and peg in its bill, as a miner would do his pick-axe, till it had loosened a considerable portion of the hard sand, and tumbled it down amongst the rubbish below. In these preliminary

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[1] Nat. Hist. of Selborne, i. 299, edit. 1825.
[2] See Insect Architecture. Chap. ii. &c.

operations, it never makes use of its claws for digging; indeed it is impossible it could, for they are indispensable in maintaining its position, at least when it is beginning its hole.

I have further remarked, that some of this swallow's holes are as nearly circular as if they had been planned out with a pair of compasses, while others are more irregular in form; but this seems to depend more on the sand crumbling away than upon any deficiency in the original workmanship. The bird, in fact, always uses its own body to determine the proportions of the gallery, the part from the thigh to the head forming the radius of the circle, though it does not trace this out as we would do, by fixing a point for the centre, around which to draw the circumference. On the contrary, it perches on the circumference with its claws, and works with its bill from the centre outwards, and hence it is that in the numerous excavations recently commenced, which I have examined, I have uniformly found the termination funnel-shaped; the centre being always much more scooped out than the circumference. The bird consequently assumes all positions while at work in the interior, hanging from the roof of the gallery with its back downwards, as often as standing on the floor. I have more than once, indeed, seen a Bank Swallow wheeling slowly round in this manner on the face of a sand bank, when it was just breaking ground to begin its gallery.

This manner of working, however, from the circumference to the centre, unavoidably leads to irregularities in the direction, which would not so readily occur by reversing the procedure; for though the radius formed by a part of the bird's body is subject to little variation, yet the little that does occur, from the extension or contraction of the neck, must tend to throw it out of the right line. Accordingly, all the galleries are found to be more or less winding on to their termination, which is at the depth of from two or three feet, where a bed of loose hay and a few of the smaller breast feathers of geese, ducks, or fowl, is spread with little art for the reception of the eggs.[1]

It may not be unimportant to remark also, that it always scrapes out with its feet the sand detached by the bill; but so carefully is this performed, that it never scratches up the unmixed sand or disturbs the horizontality of the floor, which rather slopes a trifle upwards, and of course the lodgment of rain is thereby prevented. White says he has frequently observed holes of different depths left unfinished at the end of summer; and rejecting the first notion which occurred to him, that these beginnings were intentionally made in order to be in the greater

[1] Sepp, Nederlandsche Vogelen, i. Deel.

forwardness for next spring,—supposes they may have been abandoned on account of the soil proving either too hard or too loose. It appears more probable, I think, that some accident may in such cases have befallen the birds; for they seem to be always careful in choosing the sort of bank best suited for their mode of mining. In most of the numerous localities which I have examined, they always made choice of a very hard bed of alluvial sand, in an escarpment either facing a river, a quarry, or a sand-pit, and from ten to thirty feet from the base, being evidently most in fear of enemies from below; while above I have often seen their galleries within a foot of the surface. When the escarpment again is very high, they prefer a middle height, an instance of which occurs at the chalk-pit, behind the Hanging Wood at Charlton, in Kent.*[1]

Sometimes they build in old walls, and, we are told, in hollows of trees. The nest is composed of straw and dried fibres, lined with feathers. *It is common in the Orkneys.*

The eggs are four or five in number, quite white, like those of the window swallow, but rather smaller; weighing about twenty-two grains.

The manners of this species is much like that of the window swallow, and they are often seen in company together, skimming over water in pursuit of gnats and other subaquatic insects.

*The remark of White and Wilson, that the Bank Swallow shuns human neighbourhood, does not accord at all with my observations. "It is," says White, "*fera naturâ*, at least in this part of the kingdom, disclaiming all domestic attachments, and haunting wild heaths and commons; while the other species are remarkably gentle and domesticated, and never seem to think themselves safe but under the protection of man. There are in this parish, in the sand-pits and banks of the lakes of Wolmer Forest, several colonies of these birds, and yet they are never seen in the village, nor do they at all frequent the cottages that are scattered about in that wild district[2]." Wilson also says that it "appears to be the least intimate with man of all our swallows."[3]

On the contrary, the colony above-mentioned at Charlton in Kent, is in the vicinity of a number of cottages, while two lime-kilns are in constant operation just below the bank. A colony again at Catrine in Ayrshire, is not only within a few yards of a party of quarry-men constantly at work, but is not a gunshot from a row of nearly a hundred houses, close by the doors of which I have seen the birds

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[1] Architecture of Birds, p. 21. [2] Nat. Hist. of Selborne, ii. 297.
[3] American Ornithology, p. 46.

hawking for flies every hour of the day. A more marked instance occurs in a colony of them established at the lime-kilns, Greenwich, near the foot of Blackheath-hill, which is surrounded by streets; and along these I have frequently seen parties of the Bank Swallow in pursuit of their prey, though they certainly prefer a more distant excursion to the Thames or the Ravensbourne, as those at Catrine do, to skim the surface of the reservoirs and mill-streams in their vicinity. Since writing the above, I have observed a colony of Bank Swallows, which still more strikingly confirms my position, at Dartford in Kent, where they have not only made choice of the bank through which the great public road from London to Dover has been cut, but have preferred the part of it nearest the town, some of their holes being within a dozen yards of the end of the street, while I did not see a single hole at the further end of the bank. The wildest locality in which I have observed colonies of the Bank Swallow, was on the high cliffs between Cape d'Antifer and La Héve, on the coast of Normandy; but I also repeatedly saw parties of half a dozen or more from these very colonies hawking through the streets of the adjacent villages several miles from their nests.*[1]

The birds of this, as well as the other species, have been supposed to lie torpid in their holes all the winter; and many fruitless attempts have been made to discover them in that season by digging to the bottom of those holes where they resort in summer.

It is found in most parts of Europe, and is said to be common in America, where it is called the ground swallow. *Wilson found them numerous on the banks of the Ohio.*

BARGANDER.—A name for the Shell Drake.

BARKER (*Totanus fuscus*, LEISLER.)

Scolopax Totanus. *Linn.* Syst. 1. p. 254. 12.—*Gmel.* Syst. 2. p. 665.—Ind. Orn. 2. p. 721. 24.—Totanus alter. *Raii*, Syn. p. 106. 11.—*Will.* p. 221.—*Ib.* Angl. p. 299.—T. fuscus, *Temm.* Man. 2. p. 639.—*Leisl.* Naturg. 2. p. 47. No. 2. —Barker, *Albin*, 2. t. 71.—Spotted Redshank, Br. Zool. 2. No. 186.—Spotted Snipe, *Lath.* Syn. 2. p. 148. 19.—Gen. Hist. 9. 239. 40.—*Lewin*, Br. Birds, 4. t. 164.—*Mont.* Orn. Dict. and Supp.—*Flem.* Brit. Anim. 102.

This species is about the size of the Greenshank. The head is of a pale ash-colour, marked with oblong streaks of black: back dusky, varied with triangular white spots; wing coverts ash-coloured, spotted in the same manner; quills dusky; breast, belly, and thighs, white; the first thinly spotted with black; the middle feathers of the tail ash-coloured, the side feathers whitish, barred with black; legs long, and of a bright red.

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[1] Architecture of Birds, p. 25.

Latham describes a variety of this bird, the length of which is sixteen inches; the bill more than two inches long, and brown; orbits, chin, and throat, white, with a white line from the bill to the eye; cheeks and fore part of the neck white, with short dusky streaks; crown and upper part of the neck brown, streaked with white; wings black, marked with elegant triangular spots of white; breast and belly white; legs long and of a rich yellow; sometimes red.

We do not know whether this variety has been met with in England; the other has been killed with us, though rarely, on the coast during winter. It breeds in the North of Europe and America.

One lately came under our inspection killed in August on the south coast of Devonshire. It weighed about six ounces; length thirteen inches; the bill two inches and a half long, and very slender; the upper mandible longest, and black; the base of the under mandible red. The head and back of the neck dusky, dashed with cinereous, lightest on the latter; from the bill to the eye a dusky streak; chin and throat white; back, scapulars, and wing coverts, dusky, spotted with grey; the fore part of the neck, breast, and all the under parts, mottled brown and white; lower part of the back and rump white; the coverts of the tail barred with black and white; the six first quill-feathers dusky black, the rest more or less scalloped or barred with white on the edges of both webs; the first feather has a white shaft; the tail consists of twelve feathers; the two middle ones rather longest; all obscurely marked with numerous bars of black and brown; the edges scalloped with white; legs orange-red, four inches long, from the end of the toe to the knee, and one inch bare above the knee. It feeds on river shell-fish; rarely on insects or worms.

The young birds have the plumage tinged with olive-brown, scapulars and wing coverts with triangular black spots, belly whitish, with zig-zag lines and spots of brownish-ash. Latham's Courland snipe is only the present species in its perfect winter plumage; his dusky snipe the same in its summer or breeding plumage.

BARLEY BIRD.—A name for the Aberdevine.

BARN OWL (*Aluco flammeus*, Fleming.)

Strix flammea, *Linn.* Syst. 1. p. 133. 8.—*Gmel.* Syst. 1. p. 293.—*Raii*, Syn. p. 25. A. 1.—*Will.* p. 104. t. 13.—Ind. Orn. 1. p. 60. 28.—*Bris.* 1. p. 503. 2.—*Ib.* 8vo. p. 147.—Aluco minor, Aldrov. *Will.* p. 67. t. 13.—L'Effraie, *Buff.* 1. p. 366. t. 26.—White Owl, Br. Zool. 1. No. 67.—*Ib.* fol. p. 71. t. B.—Arct. Zool. No. 124.—*Will.* (Angl.) p. 104. t. 13.—*Albin*, 2. t. 11.—*Lewin*, Br. Birds, 1. t. 26.—*Lath.* Syn. 1. p. 138. 26.—Sup. p. 46.—*Walc.* Syn. 1. t. 26.—*Don.* Br. Birds, 5. t. 113.—*Pult.* Cat. Dorset. p. 4.—*Mont.* Orn. Dict.—*Bewick*, 1. 13.—Barn Owl, *Shaw*, Zool. 7. 258.—*Selby*, pl. 24. 8vo. pt. 1. p. 61.—*Flem.* p. 57.

Provincial.—Gillihowter. Howlet. Madge Howlet. Church Owl. Hissing Owl. Screech Owl.

The weight of this species is about eleven ounces; length between thirteen and fourteen inches. The bill is light coloured; irides dusky. The feathers round the eyes yellowish; the circle round the face white; the upper parts of the body, coverts, and secondary quills, pale dull yellow, with two white and two grey spots placed alternately on each side the shafts; prime quills dull yellow on the outer webs, the inner white, marked on each side with four black spots; the whole under side white; the interior webs of the tail-feathers are white, the exterior marked with obscure dusky bars; legs covered with white down; the toes only with short hairs; middle claw serrated.

This elegant bird mostly frequents the habitations of man; is rarely found in woods, but resorts chiefly to barns for the sake of mice, for which reason it is a welcome guest to the farmer. Like the rest of the genus, it chiefly lies concealed in the day, but will sometimes, when pressed by hunger, prey by daylight, especially in winter, or when it has young. It breeds in old decayed trees in the neighbourhood of farm-houses or villages, and oftentimes in barns; makes very little nest; lays three or four white eggs, not so round or so large as that of the tawny owl.

Their food is chiefly mice, which they swallow whole, and, like other predacious birds, eject the bones and fur in large pellets, which are termed castings. Some bushels of this ejected matter are found in the hollows of old trees. This species is never known to hoot, but its notes are screaming and harsh; besides which it makes a snoring and hissing noise. *Sir W. Jardine asserts in a note to the late edition of White's Selborne, that the White Owl does hoot, that he has shot them in the act, and that at night, when not alarmed, hooting is their general cry.* When alarmed it snaps its bill together with great force.

It becomes exceedingly tame when taken young. We bred up one together with a sparrow hawk and a ring dove, who were confined together, and lived in great harmony, but the latter was the most quarrelsome, and was master of the triumvirate. After living together for six months, they were given their liberty, and the owl was the only one that returned. *Cats are known to kill but never to eat the shrew, which has been supposed to possess some poisonous quality. We have, however, taken from the stomach of one of these birds no fewer than five shrews.*

BASS COCK.—A name for the Plover.

BASTARD PLOVER.—A name for the Lapwing.

BAWKEE.—A name for the Razor Bill.

BEAM BIRD (*Muscicapa grisola*, LINNÆUS.)

Muscicapa grisola, *Linn.* Syst. 1. p. 328. 20. — *Gmel.* Syst. 1. p. 949.—*Lath.* Ind. Orn. 2. p. 467.—*Briss.* 2. p. 357. 1. t. 35. f. 3.—*Raii*, Syn. p. 81. 7.—*Will.* p. 153. 171.—Le Globe-mouche, proprement dit, *Buff.* Ois. v. 4. p. 517. t. 25.—*Id.* Pl. Enl. 565. f. 1.—Gobe-mouche, gris. *Temm.* Man. d'Orn. 1. p. 152.—Gecleckter Flugenfanger, *Bechst.* Naturg. Deut. 3. p. 421.—*Meyer*, Tasschenb. Deut. 1. p. 211.—*Frisch*, t. 22. f. 2. 6.—Spotted Flycatcher, Br. Zool. 1. p. 350. No. 134.—*Lewin's* Br. Birds, 3. t. 87.—*Lath.* Syn. 3. p. 323. 1.—*Mont.* Orn. Dict.—*Bewick's* Br. Birds, 1. p. 196.—*Ib.* Supp. p. 30.—*Selby*, pl. 43. f. 1. p. 146.

Provincial.—Rafter. Post Bird. Bee Bird. Cherry Chopper. Cherry Sucker. Chanchider.

This species is about the size of a titlark; length not quite six inches. The bill is dusky, and broad at the base; inside of the mouth yellow; irides hazel.

The whole upper parts of the bird are brown; the head obscurely spotted with dusky: breast and belly dull white; the shafts of the feathers on the breast dusky: sides under the wings tinged with dull orange; legs short and black.

This bird comes to us late in the spring, and departs in September, *(the middle of October, Selby.)* It frequents orchards and groves, will often make its nest on the limb of some fruit tree nailed against the wall, or in a hole; sometimes in out-buildings, upon the end of a rafter or beam; and at other times against the body of a large tree upon the stump of a decayed branch. The nest is formed of bents, moss, and such like materials, interwoven with spiders' webs, and lined with feathers.

It lays four or five eggs, not much unlike those of the redbreast, but rather less, and the rust-coloured spots more distinct, and not so much confined to the larger end.

Its food seems to be entirely winged insects, which it takes on the wing, darting upon them from some leafless branch or post, to which it returns; whence it is called in Kent the post bird. We are told it is particularly fond of cherries. * But Selby says he has not been able to verify this, and it may in such cases have been confounded with the fauvette.* Perhaps they may frequent the cherry and other fruit trees for the sake of flies, which are attracted by the fruit.

As soon as the young birds leave the nest, they are led by the old ones to some neighbouring wood or grove where insects abound, and where they may be seen darting in every direction in pursuit of flies, and frequently returning to the same stand.

Its note is a simple weak chirp, not frequently used till after the young are fled, so that the bird is not easily discovered, though it is by no means uncommon, and seems to be more generally diffused in

England than the redstart, and many other of the summer migrants. * It is rare in Scotland. * We have observed it in several parts of Cornwall, where the last-mentioned bird is rarely, if ever, seen : and it is more common than that bird in the west of Devonshire.

Willughby says it is found in Yorkshire, and called the beam-bird, from its nesting under beams in out-buildings. He also calls it beccafigo, or fig-eater. Mr. Pennant has considered Willughby's beam-bird as the chiff-chaff *(Sylvia hippolais)* ; but his description, which is as follows, by no means answers to that bird. "Less than the blackcap. The inside of the mouth is red ; the head, neck, back, and wings, are of an olivaceous ash colour : the quill-feathers darker, edged with olive ; the inner coverts of the wings yellow : breast white, tinged with yellow : the belly silvery white ; the tail dusky ; the legs bluish." [1] Most certainly this description does not correspond with either the fauvette, or chiff-chaff. From the habit, we should be led to believe it to be the beam-bird, *(Muscicapa grisola,* Linnæus,) which in some places is called by the name of rafter, from its resting on, or under, rafters in old buildings ; whereas the fauvette and chiff-chaff invariably repair to woods and hedges for the purpose of nidification.

* A correspondent of Loudon's Magazine of Natural History had a nest of this bird brought to him, which he describes as follows : "It was built upon a wooden rake, that was carelessly lying on the ground in a cottage garden at Bransford, near Worcester ; in this nest the female laid five eggs, and even sat on them, indifferent to any one passing in the garden, till the nest was taken by a boy belonging to the cottage. The nest is carelessly put together, yet prettily constructed of long green moss, intermixed with the catkins of the hazel, and fibres, the interior lined with thin straw and wool ; eggs thickly spotted with brown." *

BEAN CRAKE.—A name for the Land Rail.

BEAN GOOSE (*Anser ferus,* Lister.)

Anas segetum.—*Gmel.* Syst. 2. p. 512.—Ind. Orn. 2. p. 843. 28.—*Temm.* Man. 820.—*Raii.* Syn. 136.—Bean Goose. Br. Zool. 2. No. 267. t. 94. f. 2.—Arct. Zool. 2. No. 472.—*Lath.* Syn. 6. p. 464. 23.—*Lewin,* Br. Birds, 7. t. 239.—*Pult.* Cat. Dorset. p. 20.—*Walc.* Syn. 1. t. 65.—*Lister,* Phil. *Fram.* 15. 1159.—*Will.* Orn. 274.—*Flem.* p. 126.

Provincial.—Small Grey Goose. Common Wild Goose.

This species, *which Linnæus confounded with the Grey Lag,* is less than it, the weight being only from five pounds to upwards of seven ; length from two feet and a half to three feet. The bill is small, com-

[1] Br. Zoology, 149.

pressed near the end, of a whitish flesh-colour, or orange; except the tip, or what is termed the nail, which is black, (the great characteristic mark of distinction;) the edges of both mandibles are serrated, the irides hazel, or rufous brown. The head and neck cinereous brown; the whole underpart, as far as the legs, the same, but lighter; darkest on the thighs; the forehead speckled with white, behind which the feathers are dusky brown; the back is ash-colour; the lower part of the belly, upper and under tail coverts, white; scapulars brown ash-colour, edged with white; the greater quill-feathers are black: exterior webs grey; secondaries cinereous grey, margined with black on the outer webs; coverts grey, the larger ones tipped with white: legs dark orange. There appears to be some little variation in the plumage of these birds; in some the bill is of a dull brownish red: the upper part of the back, scapulars, and wing coverts, brown, dashed with cinereous, and tipped with white: greater quills plain dusky black: secondaries grey, tipped and margined with white. There is a callous knob on the elbow of the wing. *The windpipe increases in size about the middle, and its branchings into the lungs are short and tumid.*

These birds come to us early in the winter, sometimes in large flocks, and are as often seen in the uplands as in the fens, resorting to fields of green wheat, which at that season they seem to prefer to any other food.

In the spring they retire northward to breed; many are said to inhabit Lewis, one of the Hebrides, all the summer, and breed there.

It is frequently killed and sold at market for the fen or grey lag goose; and indeed is more frequent, but has long been confounded with that bird. The specimen from which our description is taken, was killed in Wales; but we have seen it as far west as Devonshire.

BEARDED TIT (*Parus biarmicus*, Linnæus.)

* Parus biarmicus, *Gmel.* Syst. 1. p. 1011.—*Lath.* Ind. 2. p. 570. sp. 23.—Parus barbatus, *Briss.* 3. p. 567. 12.—Le Mesange barbue ou moustaché, *Buff.* 5. p. 518. t. 18.—*Temm.* 1. p. 298.—Least Butcher Bird, *Edw.* t. 55.—Bearded Titmouse, *Penn.* Br. Zool. 1. p. 167. Arct. Zool. 2. p. 248.—*Lath.* Syn. 4. p. 552. 20.—*Don.* Br. Birds, 1. p. 1.—*Shaw's* Zool. 10. p. 62.—*Bewick*, 1. p. 246.—*Mont.* Orn. Dict. & Supp.—*Selby*, 1. p. 236.—*Flem.* p. 81.

Provincial.—Reed Pheasant.*

This very elegant species is about the size of the tomtit, but on account of the length of the tail, is much longer, measuring about six inches and a quarter. The bill is near half an inch long, of an orange colour, differing somewhat from the rest of the genus, being a little arcuated; the upper mandible longest; irides yellow. The head is pale ash-colour; beneath the eye is a tuft of loose black feathers, ending in

a point downwards; the hind part of the neck and back light rufous-orange; scapulars whitish; throat white; breast cinereous flesh-colour; belly, sides, and thighs, like the back, but paler; vent black; quill-feathers dusky; the inner webs of the primores white; the secondaries edged, and those next the body tipped with the same colour as the back; the tail is about three inches long, and very cuneiform, nearly the colour of the back; the three outer feathers more or less tipped with white; legs black.

The female differs in having no black mark under the eye or at the vent; the head is light ferruginous, spotted with black; between the bill and eye a dusky spot.

The history of this species is very little known, although it breeds with us, and continues the whole year. It is found in the marshes amongst the reeds between Erith and London, in Gloucestershire, and amongst the great reedy tracks near Cowbit in Lancashire. We have also killed it near Winchelsea in Sussex, amongst the reeds close to the sea-shore, in the month of June; there were five together, doubtless the brood of that year. One of the young which we procured had its nestling feathers much the colour of the female; but the feathers were of a looser texture, as in all young birds. We took much pains to find the nest, but without success, unless it is so like that of the reed wren's as not to be distinguished, as that bird bred in the same place, and many such nests were taken. Authors have differed with respect to the shape and composition of the nest, as well as in the place of nidification; one making it the shape of a purse suspended to a branch of a willow; another gives it placed on the ground amongst sedge of a loose texture, composed of the down of the reed intermixed with narrow leaves; and that it lays four eggs of a reddish white, spotted with brown; others have undoubtedly taken the nest of the reed wren for it; so that no certain conclusion is to be drawn from these various accounts. *By some unaccountable mistake Montagu's description of the nest of the bottle tit was given in Pennant's British Zoology, as belonging to this bird.*

* "The borders," says Mr. Hoy, "of the large pieces of fresh water in Norfolk, called Broads, particularly Hickling and Horsey Broads, are the favourite places of resort of this bird; indeed it is to be met with in that neighbourhood, wherever there are reeds in any quantity with fenny land adjoining. During the autumn and winter they are found dispersed, generally in small parties, throughout the whole length of the Suffolk coast, wherever there are large tracts of reeds. I have found them numerous, in the breeding season, on the skirts of

Whittlesea, near Huntingdonshire, and they are not uncommon in the fenny district of Lincolnshire; whether they are to be met with farther north, I have had no means of ascertaining, but they do not appear to have been noticed north of the Humber. It begins building in the end of April. The nest is composed on the outside with the dead leaves of the reed and sedge, intermixed with a few pieces of grass, and invariably lined with the top of the reed, somewhat in the manner of the nest of the reed wren, (*Sylvia arundinacea*, LINNÆUS,) but not so compact in the interior. It is generally placed in a tuft of coarse grass or rushes near the ground, on the margin of the dikes, in the fen; also sometimes fixed among the reeds that are broken down; but never suspended between the stems. The eggs vary in number from four to six, rarely seven; pure white, sprinkled all over with small purplish red spots, intermixed with a few small faint lines and markings of the same colour; size about the same as those of the oxeye, but much more rounded at the smaller end. Their food during the winter is principally the seed of the reed, and so intent are they searching for it, that I have taken them with a birdlime twig attached to the end of a fishing-rod. When alarmed by any sudden noise, or the passing of a hawk, they utter their shrill musical notes, and conceal themselves among the thick bottom of the reeds, but soon resume their station, climbing the upright stems with the greatest facility. Their manners in feeding approach near to the bottle tit, often hanging with the head downwards, and turning themselves into the most beautiful attitudes. Their food is not entirely the reed seeds; but insects and their larvæ, and the very young shell-snails of different kinds which are numerous in the bottom of the reedlings. I have been enabled to watch their motions when in search of insects, having when there has been a little wind stirring, been often within a few feet of them quite unnoticed among the thick reeds. Were it not for their note betraying them, they would be but seldom seen. The young, until the autumnal month, vary in plumage from the old birds; a stripe of blackish feathers extends from the hind part of the neck to the rump. The males and females I have always observed in company; they appear to keep in families until the pairing time, in the manner of the bottle tit; differing in this respect, that you will occasionally find them congregated in large flocks, more particularly during the month of October, when they are migrating from their breeding place.[1]

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[1] Loudon's Mag. of Nat. Hist. iii. 329.

* Another correspondent of the Magazine of Natural History says, " The Bearded Titmouse inhabits the marshes bordering on the Thames, both in Kent and Essex. I was told in December last, that some had been seen in a large piece of reeds below Barking Creek; and being desirous of observing them in their haunts, I went out one morning accompanied by one person and a dog, to the above-named place, on a cold windy morning; the reed-cutters having commenced their operations, I was fearful of deferring my visit, lest my game might be driven away: arrived on our ground, we traversed it some time without success, and were about to leave it, when our attention was roused by the alarm-cry of this bird. Looking up, we saw eight or ten of these beautiful creatures on the wing, just topping the reeds over our heads, uttering in full chorus their forcibly musical note, which resembles the monosyllable *ping*, *ping*, pronounced at first slow and single, then two or three times in a more hurried manner, uttered in a clear and ringing though soft tone, which well corresponds with the beauty and delicacy of this bird. Their flights were short and low, only sufficient to clear the reeds, on the seedy tops of which they alight to feed,—hanging like most of their tribe with the head or back downwards. If disturbed, they descend by running or rather by dropping. The movement is rapid along the stalk to the bottom, where they creep and flit, perfectly concealed by the closeness of the covert, which resembles the tint of their plumage. After some time we were fortunate enough to shoot one, a male in fine plumage. I held it in my hand when scarcely dead. Nothing could exceed the beauty of the eye; the bright orange of the iris, surrounded by the deep glossy black of the mustaches and streak above, receives additional brilliancy from the contrast, and struck me as a masterpiece of colour and neatness."[1] It has been ranked by various authors with the butcher bird, and was called least butcher bird, in a former edition of the British Zoology, but afterwards removed by Mr. Pennant to this genus.*

BEE BIRD.—* A name for several small birds, such as the Willow Wren, and Beam Bird.*

BEE EATER (*Merops apiaster*, Linnæus.)

* Merops Apiaster, *Linn.* Syst. 1. p. 182. 1.—*Gmel.* Syst. 1. p. 460.—*Lath.* Ind. Orn. 1. p. 269. 1.—*Raii*, Syn. p. 49. 3.—*Will.* p. 102. t. 24.—*Briss.* 4. p. 582.—Merops chrysocephalus, *Lath.* Ind. Orn. 1. p. 273. 11.—Merops Galilæus, *Hassel.* It. 247.—Le Guepier, *Buff.* Ois. 6. p. 480. t. 23.—*Id.* pl. Enl. 938.—*Le Vaill.* Ois. de Parad. et Promer, 3. pl. 1. and 2.—Le Guepier vulgaire, *Temm.* Man. d'Orn. 1. p. 420.—Bienfresser, *Bechst.* Naturg. Deut.

[1] Mag. of Nat. Hist. ii. 222.

2. p. 1099.—*Meyer*, Tasschenb. Deut. 1. p. 132.—*Id.* Vög. Deut. 1. t. Heft. 10. male and female.—*Frisch.* Vög. t. 221. the female, t. 222. male.—Yellow-throated Bee-eater, *Lath.* Syn. 2. p. 678.—Common Bee-eater, *Will.* (Ang.) p. 147.—*Albin*, 2. t. 44.—Linn. Trans. 3. p. 333.—*Lath.* Syn. 2. p. 667.—*Id.* Supp. p. 119.—Gen. Hist. 4. 118.—*Mont.* Orn. Dict.—*Id.* Supp.—*Shaw's* Zool. 8. p. 152.—*Flem.* Brit. Anim. p. 90.—*Selby*, pl. 41. pt. 1. p. 123. *

The common Bee Eater is the only one, out of twenty-three known species, that has ever made its appearance in England.

As we never had an opportunity of examining more than one which was killed in this country, which varied but little from the description given by Latham, we shall take the liberty of borrowing it from that author.

It measures from bill to tail ten inches. The bill is an inch and three quarters in length, and black; the base of the upper mandible covered with dirty-white feathers; the irides are red; the forehead is of a blue-green colour, behind it green; the top of the head chestnut, tinged with green; hind-head and upper part of the neck chestnut, growing paler towards the back; from the bill to the hind-head is a black stripe, passing through the eyes; the back and scapulars are very pale yellow, tinged with both chestnut and green; rump and upper tail coverts blue-green, with a yellow tinge; the throat is yellow; the under part of the body blue-green, growing paler towards the belly; the lesser wing coverts are dull green; the quills, for the most part, sea-green without, and many of the inner ones rufous; the first very short, the second longest of all; the tail is wedge-shaped, and consists of twelve feathers, the shafts of which are brown above, and whitish beneath; the two middle feathers are sea-green, with a shade of rufous; the rest the same, but margined with cinereous within; the two middle feathers exceed the outer ones by three quarters of an inch; the legs are of a reddish brown, claws reddish black.

This bird does not appear to have been noticed in England till within these few years. In the third volume of the Linnæan Transactions, an account is given of one of this species having been shot (for the first time in Great Britain) in July, 1794, near Mattishall, in the county of Norfolk; which specimen was exhibited before the Linnæan Society. A flight of about twenty was seen in June; and the same flight probably (much diminished in number) was seen passing over the same spot in October following. Of late years several have been killed in England.

The *Merops apiaster* is an inhabitant of various parts of the European continent. They are not uncommon in the south of France, and in Italy, as well as in the islands of the Mediterranean. It has also been seen in Germany, and in Sweden, but no where so plentiful as in

the southern parts of Russia, particularly about the rivers Don and Wolga, in the banks of which they build their nests, perforating holes to the depth of half a foot for that purpose. Are said to be gregarious as well in the breeding season as in their migrations; excavating the clayey banks so near to each other as to appear like a honeycomb. In the autumn they migrate in large flocks to the more southern latitudes. This species is common in Egypt, where it is eaten for food. At the Cape of Good Hope it is called gnat snapper: and is a guide to the Hottentots in searching for the honey which the bees store in the clefts of the rocks. It probably breeds in Spain and Portugal, as we are assured it is not uncommon about Badajos, where they are observed to fly about in considerable numbers like the swallow; at Gibraltar they are said to remain only a few hours. The nest is composed of moss; but, according to Dr. Latham, the eggs, which are six or seven in number, perfectly white, and about the size of those of the stare, are laid upon the bare ground. Its name has doubtless been taken from that insect, to which it is so partial. It also feeds on most winged insects, which it takes on the wing like the swallow.

BEE EATER (*Merops*, Linnæus).—A genus of birds of which only one species is British.

BEECH FINCH.—A name for the Chaffinch.

BERNACLE GOOSE (*Anser Bernicla*, Willughby.)

Bernicla, *Raii*, Syn. p. 137. A. 5.—*Will.* p. 274.—*Bris.* 4. p. 300, 14.—*Ib.* 8vo. 2. p. 411.—Anas Leucopsis, *Temm.* Man. 2. 823.—*Bechst.* 4. 92.—La Bernache, *Buf.* 9. p. 93. t. 5.—Canada Goose, *Albin*, 1. t. 92.—Bernacle or Clakis. Br. Zool. 2. p. 577.—*Ib.* fol. 150.—Arct. Zool. 2. No. 479—*Will.* Angl. p. 359.—*Hayes*, Br. Birds, t. 24.—*Lath.* Syn. 6. p. 466. 26.—Gen. Hist. 10. 258.—*Lewin*, Br. Birds, 7. t. 242.—*Pult.* Cat. Dorset. p. 20.—*Walc.* Syn. 1. t. 62.—*Lister.* Phil. Trans. 15. p. 1159.—*Flem.* Br. Anim. p. 127.

The weight of this species is between four and five pounds; the length about two feet and a half. The bill is black and short. The forehead, chin, and cheeks, are white; from the bill to the eye a black line; the rest of the head, neck, and upper part of the back, black; the breast and under parts white; thighs mottled dusky and white; black about the knee; the back, scapulars, and coverts of the wings, barred with black, white, and grey; a blunt spur or knob on the elbow of the wing; upper tail coverts white; rump black; tail the same; legs dusky black.

It is said to retire north as early as February to breed, and is then found in Russia, Lapland, Norway, and Iceland. Has been met with at Hudson's Bay.

In the darker ages strange accounts were given of the history of this bird, which was supposed to be produced from the bernacle shell (*Lepas*

anatifera, LINN.) which is frequently found in vast abundance, adhering by a pedicle to logs of wood that have lain long in the sea. Strange as this may appear in this enlightened age, it was credited and handed down by various authors, * of no mean reputation, both in Scotland and England, who asserted, that they themselves witnessed the miraculous transformation, and it was hence called by continental writers, the British Bird. One of the oldest ocular witnesses of the circumstance is Hector Boëce, the Scottish historian. "All trees," he says, "that are cast into the seas by process of time, appear first worm-eaten, and in the small holes and bores thereof grow small worms: first they show their head and feet, and last of all they show their plumes and wings: finally, when they are coming to the just measure and quantity of geese, they fly in the air as other fowls do, as was notably proven in the year of God, 1480, in sight of many people, beside the Castle of Pitsligo."[1] Similar stories are related and credited by Turner, Gesner, Cardan, Bishop Leslie, Bishop Majolus, Odoric, Scaliger, Baptista Porta, Kircher, Lobel, Isidore, Delrio, Aldrovand, Johnston, and many others, all of which I have had the curiosity to examine; but cannot here spare room to quote more than the following singular passage from old Gerald, the herbalist.

"What our eyes have seen," says he, "and our hands have touched, we shall declare. There is a small island, in Lancashire, called the Pile of Soulders, wherein are found broken pieces of old and bruised ships, some whereof have been cast thither by ship-wrecks; also the trunks and bodies with the branches of old and rotten trees, cast up those likewise: whereon is found a certain spume or froth, that in time breedeth unto certain shells, in shape like those of the muscle, but sharper pointed, and of a whitish colour, and the end whereof is fastened unto the inside of the shell, even as the fish of oysters and muscles are: and the other end is made fast unto the belly of a rude mass or lump, which in time cometh into the shape and form of a bird. When it is perfectly formed, the shell gapeth open, and then the first thing that appeareth, is the aforesaid lace or string; next cometh the legs of the bird hanging out; and, as the bird groweth greater, it openeth the shell by degrees, till at length it has all come forth, and hangeth only by the bill. In short space after it cometh to full maturity, and falleth into the sea, where it gathereth feathers, and groweth to a fowl, bigger than a mallard, and lesser than a goose,

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[1] Cosmographie of Albioun, by Bellenden, Black Letter, Edinburgh, (supposed 1541,) ch. xiii.

having black legs, and bill or beak, and feathers black and white, spotted in such manner as our magpie, called in some places pie-annes, which the people of Lancashire call by no other name than treegoose; which place aforesaid, and all those places adjoining, do so much abound therewith; that one of the best is bought for threepence. For the truth hereof, if any doubt, may it please them to repair to me, and I will satisfy them by the testimonies of good witnesses."[1]

Even of late years an attempt was made to impose upon the credulity of the public, by an exhibition in London of a large collection of the bernacle shells, from which, as the advertisements stated, the bernacle geese were produced.[2]*

BILCOCK (*Rallus aquaticus*, LINNÆUS.)

Rallus aquaticus, *Linn.* Syst. 1. p. 162. 2.—*Gmel.* Syst. 2. p. 712.—*Raii*, Syn. p. 113, A. 2.—*Ib.* 190. 12.—*Will.* p. 234. t. 56.—Ind. Orn. 2. p. 755. 1.—*Briss.* 5. p. 151. 1. t. 12. f. 2.—*Ib.* 8vo. 2. p. 251.—Gallina serica Gesneri, *Raii*, Syn. p. 114. 4 ?—*Will.* p. 235.—Le Rale d'eau, *Buff.* 8. p. 154. t. 13.—*Temm.* 2. p. 683.—Velvet Runner, *Will.* Angl. p. 313 ?—Water Rail, Bilcock, Brook Ouzel, Br. Zool. 2. No. 214. t. 75.—*Ib.* fol. 130. t. E. E.—*Will.* (Angl.) p. 314.—*Albin*, 1. t. 77.—*Lath.* Syn. 5. p. 227. 1.—Gen. Hist. 11. p. 367.—*Lewin*, Br. Birds, 5. t. 189.—*Walc.* Syn. 2. t. 171.—*Pult.* Cat. Dorset, p. 15.—*Don.* Br. Birds, 5. t. 104.—*Flem.* Br. Anim. p. 98.

Provincial.—Runner. Grey-skit. Skiddy-cock.

The length of this bird is about twelve inches; weight four ounces and a half. Bill an inch and three quarters long, of a dusky colour, reddish at the base of the upper and greater part of the lower mandible; irides red. The whole upper part of the plumage is of an olive-brown, the middle of each feather black; beneath, from chin to vent, deep ash-colour, mixed with brown on the lower belly and vent; on the sides, about the thighs, there are several transverse bars of black and white; quills dusky; tail short and black, covered by the feathers above; under tail coverts white; legs reddish brown; toes long and slender, divided to their origin. In some there are a few feathers at the elbow of the wing on the coverts that are barred black and white, and the tail feathers margined with brown; the middle ones wholly olivaceous brown. Others have the feathers on the fore part of the neck margined with white. But the last variety, as mentioned by other authors, we believe is more rare. The only difference between the sexes is, the bill of the male being longer and more red.

The rail is by no means a plentiful species, but is sometimes found throughout most parts of England in low situations, about water-courses

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[1] Gerard's Herbal, ed. 1633, supe fin. [2] Bingley's Animal Biogr. iv. 305.

and rivulets, where it seeks shelter amongst sedge-rushes and reeds, and is seldom put to flight except pressed by dogs, rather depending on its legs for safety. It swims, and even dives well occasionally; but it delights more in wet ground, and shallow water it can wade through without swimming. Its principal food is worms, slugs, small shell-fish, and insects. When roused it flies only a small distance, and that in a heavy and awkward manner, with its legs hanging down. It runs nimbly, and frequently flirts up its tail.

The nest is rarely found; it is made of sedge and coarse grass, amongst the thickest aquatic plants; frequently in willow-beds. In such a situation we found one with six eggs of a spotless white, and very smooth, rather larger than than those of a blackbird; the shape a short oval, with both ends nearly alike. *Bechstein says, eight to twelve eggs of a yellowish white, irregularly spotted with dusky brown.*

This bird continues with us all the year, and by many is erroneously believed to be the land rail metamorphosed; which they say takes place in the autumn, not knowing perhaps that that bird leaves this country at that season. The very great difference in the bills might have taught them otherwise, without minute investigation; for that part can never change its form by season or climate. It is found in most parts of Europe; is sometimes very fat, and as well flavoured as a land rail.

BILL.—*The part of a bird corresponding to the mouth in quadrupeds, is called the bill or beak; and consists of two horny jaws, called MANDIBLES, the upper one of which is pierced by the NOSTRILS. The various forms of the bill, as well as its colours and partial coverings, afford good characteristic distinctions.*

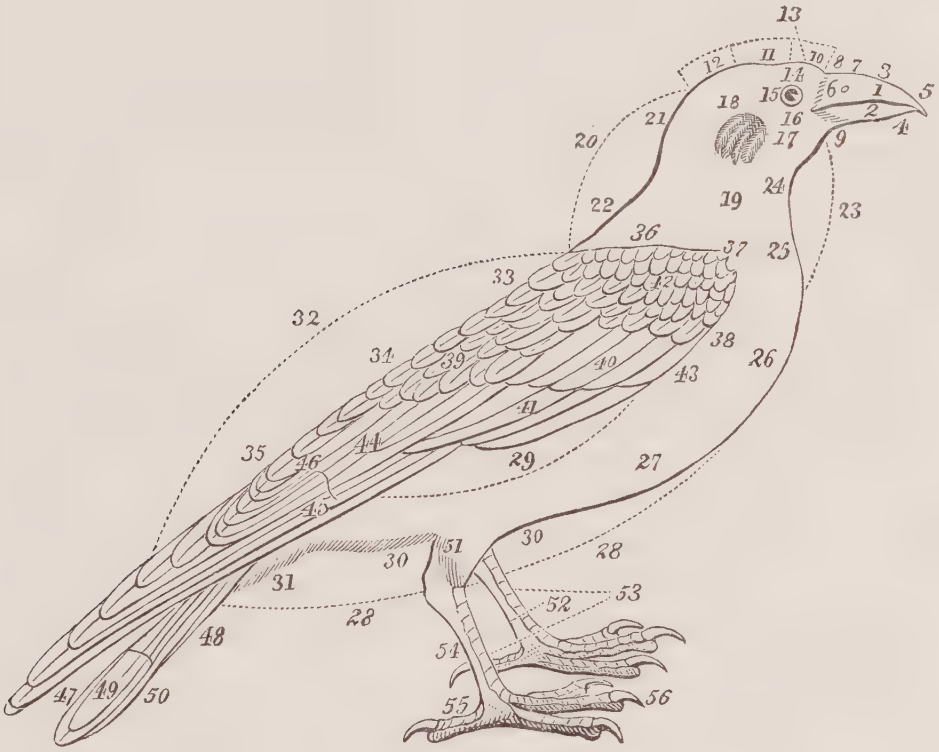
BIMACULATED DUCK (*Querquedula glocitans*, VIGORS.)

*Anas glocitans, *Lath.* Ind. 2. p. 862.—*Penn.* Br. Zool. 2. p. 287.—*Bewick*, 2. p. 355.—*Mont.* Orn. Dict.—*Lath.* Gen. Hist. 10. p. 330.—Querquedula glocitans, *Vigors*, Linn. Trans. 14. p. 559.—Bimaculated Duck, *Flem.* Br. Anim. p. 125.

Length twenty, breadth twenty-five inches. Bill blue, one inch and nine-tenths in length, the gape two inches and one tenth; head iridescent green, with a rusty spot before, and another behind the eye; breast rusty brown, spotted with black; hind neck and back waved with black and brown; wing covers and quills grey; the secondaries green, ending in a shade of black and edged with white; wing spot green, divided by black, and ending in white; tail of sixteen feathers, (Pennant says twelve), brown, edged with white, the two middle ones black, and somewhat elongated; feet yellow, with black or dusky webs. One was taken in a decoy at Ambroseden, Bucks, in 1771. Two specimens, supposed male and female, were bought in Leadenhall

market, in 1812-13, said to have been taken in a decoy near Malden, Essex. It is a native of Eastern Siberia. Its call is a sort of clucking.*

BIRD.—*The external parts of a bird which require to be noticed and distinguished by the naturalist, are the head, neck, body, wings, tail, and legs; which parts again are subdivided more or less minutely, according to the taste of various writers on the subject. I think it will be useful to younger naturalists to give an outline engraving to assist them in naming these several parts.*



1. Maxilla superior, the upper mandible of the bill.
2. Maxilla inferior, the lower mandible of the bill.
3. Culmen, the ridge of the bill.
4. Gonys, the angle or point of the under mandible.
5. Dertrum, the hook of the bill.
6. Nares, the nostrils.
7. Mesorhinium, the upper ridge of the bill.
8. Lorum, the bone, a naked space at the base of the bill.
9. Mentum, the chin.
10. Frons, the forehead.
11. Vertex, the crown of the head.
12. Sinciput, the hinder part of the head.
13. Capistrum, the face.
14. Supercilium, the eye-brow.
15. Regio ophthalmica, the region of the eye.
16. Tempora, the temples.
17. Gena, the cheek.
18. Regio parotica, the parts about the ear.
19. Collum, the neck.
20. Cervix, the hinder part of the neck.
21. Nucha, the nape of the neck.
22. Auchenium, the under nape of the neck.

23. GUTTUR, the throat.
24. GULA, the gullet.
25. JUGULUM, the lower throat.
26. PECTUS, the breast.
27. EPIGASTRUM, the stomach.
28. ABDOMEN.
29. HYPOCHONDRIA, the sides of the abdomen.
30. VENTER, the belly.
31. CRISSUM, the vent.
32. DORSUM, the back.
33. INTERSCAPULUM, space between the shoulders.
34. TERGUM, the middle of the back.
35. UROPYGIUM, the rump.
36. HUMERI, the shoulders.
37. FLEXURA, the bend of the wing.
38. AXILLA, the arm-pit.
39. ALA, the wing.
40. TECTRICES, the wing coverts.
41. TECTRICES MAJORES, the largest wing coverts.
42. TECTRICES MINORES, the smallest wing coverts.
43. TECTRICES MEDIÆ, the middle wing coverts.
44. REMIGES, the rowers.
45. PRIMARIÆ, the quills.
46. SECUNDARIÆ, secondaries.
47. CAUDA, the tail.
48. RECTRICES, the tail feathers, divided into 49, INTERMEDIÆ, the middle, and 50, LATERALES, the side feathers.

CRUS, the leg, divided into,

51. TIBIA, the thigh, answering to the leg in quadrupeds.
52. PLANTA, or PES, the foot, divided into
53. TARSUS, the shank, answering to the heel in quadrupeds.
54. ACROTARSIUM, the shin.
55. HALLUX, the great toe.
56. DIGITI, the toes. *

BITTERN (*Ardea stellaris*, LINNÆUS.)

Gmel. Syst. 2. p. 646.—*Raii*, Syn. p. 100. A. 11.—*Will.* p. 207. t. 50. 52.—Le Butor, *Buff.* 7. p. 411.—*Temm.* 2. p. 580.—Bittern, Br. Zool. 2. No. 174.—*Ib.* fol. 711. t. A. 1.—*Will.* (Angl.) p. 282.—*Albin*, 1. t. 68.—*Haye's* Br. Birds, t. 19.—*Lath.* Syn. 5. p. 56. 17.—*Ib.* Sup. p. 234.—Gen. Hist. 9. 97.—Ind. Orn. 2. p. 680. 18.—*Lewin*, Br. Birds, 4. t. 146.—*Walc.* Syn. 2. t. 127.—*Pult.* Cat. Dorset, p. 14.—*Flem.* Br. Anim. p. 95.—Botaurus, *Briss.* 5. p. 444. 24. t. 37. f. 1.—*Ib.* 8vo. 2. p. 327.

Provincial.—Bittour. Bumpy Coss. Butter Bump. Miredrum. Bog Bumper. Bumpie. Bog Bluiter.

This species is rather less than the common heron; length about two feet and a half.

The bill is four inches long, of a brown horn colour above; the lower mandible, and base of the upper, greenish; irides yellow. The feathers on the top of the head are black; those on the hind head, neck, and breast, are long and loose; the plumage, in general, is of a dull pale yellow, elegantly variegated with spots, and bars of black; the greater coverts and quill-feathers ferruginous, regularly barred with black; tail short; legs pale green; toes and claws very long and slender; the middle claw serrated on the inner edge. The female is rather less, the plumage not so bright, and the feathers on the neck not so long and flowing in the male.

The Bittern is by no means a plentiful species. *Latham and Temminck say it is very common; and Fleming that it is daily becoming more scarce.* In the breeding season it is only found in the less-frequented reedy marshes, and swampy moors well clothed with rushes,

where it forms a nest on some tump, by collecting a quantity of sedge or other coarse plants together. It lays four or five eggs of a light olive-green colour, inclining to cinereous. At this season the male makes a singular bellowing noise.

* Those who have walked in a summer's evening by the sedgy sides of unfrequented rivers, must remember a variety of notes from different water-fowl; the loud scream of the wild-goose, the croaking of the mallard, the whining of the lapwing, and the tremulous neighing of the jack-snipe. But of all these sounds, there is none so dismally hollow as the booming of the Bittern. It is impossible for words to give those who have not heard this evening call, an adequate idea of its solemnity. It is like the interrupted bellowing of a bull; but hollower and louder, and is heard at a mile's distance, as if issuing from some formidable being that resided at the bottom of the waters. This is the Bittern, whose wind-pipe is fitted to produce the sound for which it is remarkable; the lower part of it dividing into the lungs being supplied with a thin loose membrane that can be filled with a large body of air, and exploded at pleasure. These bellowing explosions are chiefly heard from the beginning of spring to the end of autumn; and are the usual calls during the pairing season. From the loudness and solemnity of the note, many have been led to suppose that the bird made use of external instruments to produce it, and that so small a body could never eject such a quantity of tone. The common people are of opinion that it thrusts its bill into a reed that serves as a pipe for swelling the note above its natural pitch; while others imagine that the Bittern puts its head under water, and then by blowing violently produces its boomings. The fact is that the bird is sufficiently provided by nature for this call; and it is often heard where there are neither reeds nor waters to assist its sonorous invitations.

It hides in the sedges by day, and begins its call in the evening, booming six or eight times, and then, discontinuing for ten or twenty minutes, it renews the same sound. In Scotland the sound of the Bittern is so very common that every child is familiar with it, though the birds, from being shy, are not often seen. The poet Thomson seems to have had a very erroneous notion of the manner in which the bird produces the noise, when he says,

> " So that scarce
> The bittern knows his time with bill engulpht
> To shake the sounding marsh."

On the contrary, I have repeatedly remarked that the Bittern

usually booms while flying high in the air. Its lofty spiral flight indeed is a matter of common remark—

" Swift as the bittern soars on spiral wings."

SOUTHEY.

A line which, I may remark, is not very ornithological; inasmuch, as neither the Bittern, nor any other bird, has spiral wings. Southey, however, seems to be well acquainted with the boom of the bittern;

———————" At evening, o'er the swampy plain,
The bittern's boom came far."*

This bird is roused with difficulty from its lurking-place, flies heavily, and frequently alights again at a small distance, so that it falls an easy prey to the sportsman. We are informed, however, that it sometimes soars to a prodigious height in the air, with a spiral ascent, making at the same time a singular noise. In the winter these birds leave the more mountainous swamps, where it is probable the greater part breed, and become scattered in the low moist situations. In severe weather they are found in the sedgy banks of rivers and streams. It is however become much more scarce than formerly, since its flesh has been accounted a great delicacy, and poulterers value it at half-a-guinea. Its principal food is small fish, frogs and insects; the warty lizard also becomes its prey, as we have found by dissection.

BITTOUR.—A name for the Bittern.

BLACKBIRD (*Merula vulgaris*, RAY.)

* Turdus Merula, *Linn.* Syst. 1. p. 295. 22.—*Gmel.* Syst. 1. p. 831.—*Lath.* Ind. Orn. 1. p. 340. 50.—*Raii*, Syn. p. 65. A. 1.—*Will.* p. 140. t. 37.—Le Merle, *Buff.* Ois. 3. p. 330.—*Ib.* pl. Enl. 2. the male, and 555. the female.—Merle noir, *Temm.* Man. d'Orn. 1. p. 168.—Schwartz-Drossel, *Bechst.* Iasschenb. Deut. p. 149.—*Ib.* Naturg. Deut. 3. p. 376.—*Meyer*, Tasschenb. Deut. 1. p. 199.—*Frisch.* t. 29.—Merula leucocephalus, varia et candida, *Briss.* 2. p. 230, 231, 232.—Blackbird, Br. Zool. No. 109. t. 47.—Arct. Zool. 2. p. 345. 1.—*Will.* (Ang.) p. 190.—*Lewin's* Br. Birds, 2. t. 61.—*Lath.* Syn. 3. p. 43. 46.—*Ib.* Supp. p. 141.—*Bewick's* Birds, 1. p. 94.—*Low's* Fauna Orcad. p. 58.—*Shaw's* Zool. 10. p. 225.—*Flem.* Br. Anim. p. 65.—*Selby*, pl. 45. fig. 4. and pl. 43. fig. 2. *

Provincial.—Amzel. Merle.

This well-known species needs little description. The male is wholly of a deep black when it has maintained maturity, which is not till towards the spring, at which time the bill and orbits of the eyes are yellow. The young as well as the female are of a dark rusty brown, the bill and eye-lids dusky. * Individuals wholly white sometimes occur, and I have seen one of this description in the Museum at Havre de Grace.

The song of the blackbird is a shrill kind of whistle of various notes,

which it commences early in the spring. The voice is infinitely more mellow than the thrush, but has much less variety, compass, or execution; he commences his song with the morning light, and continues it from hour to hour without effort.

"When snow-drops die, and the green primrose leaves
Announce the coming flower, the merle's note,
Mellifluous, rich, deep-toned, fills all the vale,
And charms the ravished ear. The hawthorn bush
New budded, is his perch; there the grey dawn
He hails; and there, with parting light, concludes
His melody. There, when the buds begin
More richly full, melodious, he renews." GRAHAME.*

It is esteemed an excellent cage bird, but not for the aviary, as it pursues and harasses the other birds. In a wild state it feeds on snails, (?) earth-worms, (?) spiders, insects, and wild berries; it is also very fond of cherries and pears. It remains with us throughout the year; in winter it approaches houses and towns, and during severe storms it haunts the garden, coming close to the houses, and even to the windows, picking up crumbs of bread.

It is an early breeder, and prepares a nest composed externally of green moss, fibrous roots, and other like materials; the inside is plastered with earth and afterwards lined with dry grass; the nest is usually placed in a thick bush, or against the side of a bank.

* The materials used by the blackbird for the masonry of its nest being chiefly mud or clay, the workmanship is rude and unfinished, compared with the neat execution of the song thrush, with whose nest it is confounded by Dr. Fleming and others. I have now before me six specimens of the former, in which the outer frame-work differs little from that of the song thrush, except perhaps in being more massive, as is also the clay lining, which is put on in a very wet state, probably to save the saliva of the bird; but to prevent this moisture from injuring the eggs, it is lined with a thick bedding of dry hay, which in some nests is very neatly worked into the hollow formed by the clay, while in others it is laid less skilfully, and hence the nest is rendered very shallow. In two of the nests in my possession the masonry of the clay is carried round the branch of the bush where they were built, in order to make it fast, which circumstance, as it is not of usual occurrence, shows that the little architect was guided by intelligence akin to rationality, if not identical with it, and not by what is usually called blind instinct.[1]*

[1] Architecture of Birds, page 131.

It lays four or five eggs, thickly covered with pale ferruginous brown spots, mostly at the larger end; these are hatched after about fourteen days' incubation. In confinement this species will readily eat crumbs of bread, and flesh either raw or otherwise.

BLACK-BILLED AUK (*Alca pica*, Linnæus.)

*Alca pica *Linn.* Syst. 1. p. 210. 2.—*Gmel.* Syn. 2. p. 551.—Mergus Bellonii, Utamania, *Raii*, Syn. p. 119. 2.—*Will.* p. 243. t. 64.—*Ib.* (Angl.) p. 324.—Le petit pengoin, *Buff.* 9. p. 396.—Black-billed Auk, Br. Zool. 2. No. 231.—*Ib.* fol. 137.—Arct. Zool. 2. No. 426.—*Lath.* Syn. 5. p. 320. 6.—Alca torda, Ind. Orn. 2. 793, 5.—Alca minor, *Briss.* 6. p. 923. t. 8. f. 2.—*Ib.* 8vo. 2. p. 383.—*Walch.* Syn. 1. t. 85.

The Razor-bill in the winter plumage of the first year. Colonel Montagu has assigned several plausible reasons for supposing it a distinct species; but the subsequent observations of Dr. Fleming, Temminck, and other naturalists, prove that he was mistaken; yet as this was a subject to which he had directed a great deal of attention, it may be proper to give his reasons for the opinion.*

The weight of this bird is about eighteen ounces; length fifteen inches; bill black; of the shape and size of the razor-bill: smooth, or void of furrows in some, while others possess three distinct furrows, as in a specimen now before us: that nearest the base white; irides hazel; the top of the head, taking in the eyes, part of the neck, back, wings, and tail, are black; the lesser quills tipped with white: side of the head, fore-part of the neck, and all the under parts of the body white; legs brown black.

Dr. Latham, and after him several other naturalists, suspect this is only the young of the razor-bill unmatured. We cannot, however, agree in opinion with that excellent ornithologist. By late observations on the young of the razor-bill, both before and after they could fly, we find that they only differ from the parent bird in having no furrows in the bill, being destitute of the white line from the bill to the eye, and having no white on the secondary feathers, while the whole head and upper part of the neck are black, which is the essential difference between that bird and the Black-billed Auk.

This species is only found on our coasts in winter; the razor-bill breeds with us, and retires in the autumn, before which time none are to be found on our cliffs with the white cheeks and throat of the Black-billed Awk. It is hardly possible, then, to conceive that the young, who are in their first feathers so like the old ones, should become more unlike them in winter, which is contrary to the laws of nature; for observation has taught us, that all birds become more like their parents at every moulting: so that to make these birds one and

the same species, we must conclude that both old and young change their plumage in winter. This, however, is highly improbable; it is more likely that the singular line in the mature razor-bill, running from the bill to the eye, never varies, but forms the characteristic distinction of the species.

A variety of this species was shot in January, and another in February, 1802, the examination of which served still further to confirm our opinion that they form a distinct species: the first weighed from sixteen to seventeen ounces; the furrow at the base of the bill white; the base of the upper mandible to the eye was an obscure bar of white feathers; sides of the head, behind the eyes, and round the nape, dingy white; forehead and crown black; sides of the chin speckled dusky, with feathers of the throat white, slightly tipped with dusky; the upper part of the body and wings black; neck, breast, and upper part of the belly slightly tipped with sooty brown, which gives the feathers a dirty greyish appearance: the other weighed twenty ounces; length sixteen inches; breadth twenty-eight inches; bill furrowed, with one white line across each mandible on each side; inside of the mouth yellow; irides hazel; quills about sixteen in number; the first eleven all black; the remainder tipped with white; from bill to eye an obscure line of speckled feathers; legs white. A third specimen, killed in February, 1808, was without the furrows on the bill, and also the white line between the bill and the eye: the *trachea* in this species is rather compressed; the last ring at the divarication very firm and bony.

We might conclude, from the variations in the above descriptions, that all the intermediate stages between this species and the razor-bill might be traced; but this is not the case: the weight of this bird is invariably much less, and the head and neck are never observed to possess that rusty hue which characterizes the razor-bill in all seasons. It is also invariably observed to have, from its nestling plumage to the time of its autumnal migration, the head and upper part of the neck dusky. There are, however, stronger marks of distinction observable in their habits, to which we attach more importance. Fabricius tells us that these birds are more plentiful in Greenland during the breeding season than the razor-bill, and that they disperse in winter towards the south. If, then, this were really the young razor-bill, we might expect that these imperfect birds would appear amongst our swarms of razor-bills during the summer: this, however, is not the case, for out of the thousands shot on the coast of England during the breeding season, this species has never occurred to our knowledge. Having such high authority for believing that this species inhabits Greenland in great num-

bers during the summer months, and that they breed there, we must not consider the variety observed in their feathers as a step towards the perfect razor-bill; for there are others of the same class whose varieties are equally obscure. There would be no difficulty in supposing that the old razor-bill throws off the black feathers on the sides of the head, throat, and fore part of the neck, as well as the white feathers that constitute the line from the bill to the eye, on the approach of winter; that being nothing to those changes we notice in the wagtails, the ptarmigan, and several other species; but we cannot reconcile so unusual a change of plumage as would be requisite to connect the razor-bill and the Black-billed Auk as one species, when other obstinate facts seem infallibly to keep them distinct. See Razor Bill.

BLACKBONNET (*Emberiza schœniclus*, Linnæus.)—A name for the Reed Sparrow.

BLACKCAP (*Sylvia atricapilla*, Latham.)

Motacilla atricapilla, *Linn.* Syst. 1. p. 332. 18.—*Gmel.* Syst. 2. p. 970.—Motacilla mosquita, *Gmel.* Syst. the female.—Atricapilla seu ficedula, *Aldrov. Raii*, Syst. p. 79. A. 8.—*Will.* p. 162. t. 41.—Sylvia atricapilla, Ind. Orn. 2. p. 508. 6.—La Fauvette à tête noire, *Buff.* 5. p. 125. t. 8. f. 1.—Becfin à tête noire, *Temm.* 1. p. 201.—Blackcap, Br. Zool. 1. No. 148.—*Ib.* fol. 101. t. 8. f. 5.—Arct. Zool. 2. p. 418. F.—*Will.* (Angl.) p. 226.—*Lath.* Syn. 4. p. 415. 5.—*Selby*, p. 174.—*Lewin*, Br. Birds, 3. t. 116.—*Walc.* Syn. 2. t. 234.—*Pult.* Cat. Dorset. p. 9.—*Fleming*, Br. Anim. p. 70.—Curruca atricapilla, *Briss.* 3. p. 380. 6.—*Ib.* 8vo. 1. p. 416.—*Bewick*, 1. 217.

* It does not appear to me that the provincial names of Mock-nightingale, Nettle-creeper, Nettle-monger, are ever applied to the Blackcap, but to the White-throat and the Fauvette.*

This species of warbler weighs about four drams and a half: length nearly six inches. The bill is brown; irides dark hazel. The upper part of the head in the male is black, the hind part of the neck cinereous brown; back greyish brown with a tinge of green: the quill-feathers and tail dusky, edged with dull green; breast and upper part of the belly light ash colour; legs lead colour.

The female, * mistaken by Gmelin for a distinct species, * is distinguished from the other sex by the crown of the head, which is of a dull rust colour; she is also superior in size.

The Blackcap is a migrative species, visiting us early in the spring, and retiring in September; it frequents woods and thick hedges, and seems particularly partial to orchards and gardens, where it delights us with its charming melodious song, which is very little inferior to that of the nightingale, except in variety of notes. *This, however, continues only during the period of incubation, for this bird wastes no time in amusements, but appears in haste to accomplish the object of its visit,

and depart. It is very careful and suspicious; and I have observed that both birds occasionally perform the office of incubation.

* "The song of the Blackcap," says Mr. Sweet, "is very loud and agreeable; and it has a great variety of notes; it is also a real mock-bird, and will catch the note of any bird that it chances to hear sing; I have heard it imitate the nightingale so exactly, that it has deceived me; also the blackbird, thrush, and the greater pettichaps, all of which it imitates so much in its voice, that it is almost impossible to detect it, except when it runs from one into the other; or shows itself on a open part of the tree."[1] "The Blackcap," says Syme, "is truly a most delightful warbler, and may be ranked as second in the class of British song-birds. Indeed, in our own opinion, its mellow notes are equal, if not superior in richness of tone, to any in the nightingale's song. It is true the warble is desultory, but sweetly wild, and full of melody. The cadence rises and swells, then dies away in a soft and plaintive strain. Its shake, or trilling note, is the finest we ever heard. A first-rate opera singer might imitate it; but, like all imitations, it would fall short of the original. The first time we heard the notes of this bird, we mistook them for those of the red-breast and the thrush, such was the similarity of its notes to theirs, particularly its low notes, which are so similar to the soft, mellow tones of the thrush, that, when the latter are heard from a little distance, it is not easy to distinguish them from those of the Blackcap; but on hearing it several times, and at last seeing the bird, and observing the motion of its little throat, we were convinced the whole notes proceeded from one bird. On mature consideration, (having now heard it frequently,) we are still of the same opinion; but when it pours out its full song, we think it possesses many notes very similar to several in the nightingale's warble, thus combining in its song many of the musical qualities of these three excellent song-birds." Buffon says "that its airs are light and easy, and consist of a succession of modulations of small compass, but sweet, flexible, and blended." And our ingenious countryman, Mr. White, observes: "that it has usually a full, sweet, deep, loud, and wild pipe; yet the strain is of short continuance, and its motions desultory. But when this bird sits calmly, and in earnest engages in song, it pours forth very sweet, but inward melody, and expresses great variety of sweet and gentle modulations, superior, perhaps, to any of our warblers, the nightingale excepted. While they warble, their throats are wonderfully distended."[2]

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[1] Journal of a Naturalist. [2] Natural History of Selborne, Let. 60.

Sir William Jardine thinks the Blackcap retires in winter to Madeira, because he has received specimens of it from that island; but Dr. Heineken, who resided there, tells us that it is resident all the year.[1] Mr. Lewin once shot a male in Kent, in January. Mr. Syme says it is not rare in the vicinity of Edinburgh.*

The nest is built in some low bush or shrub, (*I have generally found it four or five feet from the ground,*) composed of dried stalks, generally of goose grass, put together in a very neat manner with a little wool, and sometimes a little green moss on the outside; the inside is lined with fibrous roots, upon which are frequently placed a few long hairs. The eggs are four or five in number, of a pale reddish brown, mottled, (*I should say stained,*) with a deeper colour, and sometimes sprinkled with a few ash-coloured spots: their weight about thirty-four grains. On the first arrival of the bird it feeds greedily on ivy berries, but forsakes that food as soon as the vernal sun has roused the insect tribes.

BLACK COCK (*Tetrao tetrix*, Linnæus.)

* Tetrao Tetrix, *Linn.* Syst. 1. p. 272. 2.—Faun. Suec. No. 202.—*Gmel.* Syst. 1. p. 748.—*Lath.* Ind. Orn. 2. p. 635. 3.—Urogallus minor, *Raii*, Syn. p. 35. A. 2.—*Will.* p. 124. t. 31.—*Briss.* 1. p. 186. 2.—Petit Tetras, ou Coq de Bruyère à queue fourchue, *Buff.* Ois. 2. p. 210. t. 6.—*Ib.* pl. Enl. 172. and 175.—Tetras Berkhan, *Temm.* Pig. et Gall. 3. p. 140.—*Ib.* Man. d'Orn. 1. p. 461.—Gabel Schwanziges Waldhuhn, *Bechst.* Naturg. Deut. 3. p. 1319. —*Meyer*, Tasschenb. Deut. 1. p. 295.—*Frisch*, Vög. t. 109. male.—Supp. No. 109. female.—Black Grous, Black Game. Br. Zool. 1. No. 93. t. 42.—Arct. Zool. 2. No. 314. C.—*Will.* (Angl.)—*Lath.* Syn. 4. p. 733. 3.—*Ib.* Supp. p. 213.—*Albin*, 1. t. 22.—*Lewin's* Br. Birds. 4. t. 133.—*Mont.* Orn. Dict.—*Ib.* Supp.—*Pult.* Cat. Dorset p. 7—*Walc.* Syn. 2. t. 181.—*Don.* Br. Birds, 4. t. 97.—*Bewick's* Br. Birds.—*Selby*, pl. 58. and 58. p. 304.

Provincial.—Heath-Cock, Heath-Poult.*

This species sometimes weighs as much as four pounds; length about twenty-three inches, bill dusky, irides hazel; the head, neck, and whole body, are of glassy blue-black, particularly about the neck, breast, and rump; over the eye the bare scarlet skin is granulated; the coverts of the wings dusky brown, the four first quill feathers black, the next white at the bottom, the lower half and tips of the secondaries white, under wing coverts white; the thighs are dark brown, sometimes marked with a few white spots; the tail consists of sixteen black feathers; the exterior ones bend outwards, and are much longer than those in the middle, which makes the tail very forked; the under tail coverts pure white; legs covered with hair-like feathers of a dark brown, speckled with grey; toes pectinated.

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[1] Zool. Journal. See also Mag. Nat. Hist. vol. iv.

The female weighs about two pounds; the plumage is very different from that of the male; the general colour is ferruginous, barred and mottled, with black above, the under parts paler, with dusky and brown bars; the tail-feathers are straight and even at the end, variegated with ferruginous and black.

The Black Grous is at present confined to the more northern parts of this kingdom, population and culture having driven them from the south, except in a few of the more wild, uncultivated parts; in the New Forest in Hampshire, Dartmoor and Sedgmoor in Devonshire, and the heathy hills in Somersetshire, contiguous to the latter. It is also found in Staffordshire, and in North Wales, and again in the North of England; but no where so plentiful as in some parts of the highlands of Scotland. The males are polygamous, and fight desperately for the females.

In the month of April the male places himself on an eminence as soon as it is light in the morning, crows and claps his wings, on which the females resort to his station. After the courting season the males associate peaceably together in small packs; are fond of woody, heathy and mountainous situations; but will occasionally visit the corn-fields in the autumn, retiring almost wholly to the woods in the winter, and perching on trees.

The female lays six or seven dirty white eggs, blotched with rust-colour, about the size of those of a pheasant. These are deposited amongst the highest heath, without much appearance of a nest.

The young follow the female for some time. The males are scarcely distinguishable from the other sex till they are above half grown, when the black feathers begin to appear first about the sides and breast. Their food is chiefly the tops of heath and birch, except when the mountain berries are ripe, at which time they devour bilberries and cranberries most voraciously.

A supposed hybrid bird of this species, has been described under the following synonimes:

Tetrao hybridus, Faun. Suec. No. 201.—Tetra tetrix, Ind. Orn. 2. p. 636. 3. δ. *Gmel.* Syst. 1. p. 784. 2. γ.—Urogallus minor punctatus. *Briss.* 1. p. 191. A.—*Ib.* 8vo. 1. p. 53.—Spurious Grous, Br. Zool. 1. p. 268.—Arct. Zool. 2. p. 314. B.—*Ib.* Supp. p. 62.—*Lath.* Syn. 4. p. 734.—*Ib.* Supp. p. 214.

This bird has been described by Linnæus and others as a distinct species, or mixed breed between the black and wood grous. It is said to differ from the black grous in having reddish spots on the neck, breast, wings, and thighs, and in being of a superior size. It is said to have been formerly met with in Scotland.

Dr. Latham has considered it as a mere variety of the black grous. In his *Synopsis Supplement* he has recited the accounts given by Dr. Sparrman, who says it is of the size of the female great or wood grous, and supposed to be produced from that breed and the male black grous; that it varies greatly in colour, scarcely two being found exactly corresponding; and that it is a remarkably stupid bird. Its notes resemble most that of the wood grous, but are louder, harsher, and every way more disagreeable.

This gentleman likewise remarks, that the birds hitherto met with, whether associating with the male birds or females, are ever of the male sex; and that it is not uncommon in the woods of Sweden and Finland.

Mr. Pennant, in his Supplement to the Arctic Zoology, says, the spurious grous, or racklehanen of the Swedes, is a breed between the cock of the black grous and a female of the great grous; its note partakes of both species. It is restless, constantly moving from tree to tree; it is therefore hated by sportsmen, as it gives other birds notice of their approach. This variety is well figured by Dr. Sparrman in his Museum Carlsonianum, tab. xv.—P.

Notwithstanding the above accounts, we cannot help entertaining some doubt of its being a mixed breed; a circumstance so unnatural in a state of nature, and of which we find no other instance.

If this species is met with so commonly in Sweden, how is it that none but males are found?

The wood grous, as well as the black grous, are found plentifully in Norway, and numbers are brought into this country every year; and yet we cannot learn that any such bird as the hybridus is found there. And yet Dr. Latham says he was informed by Dr. Tunstall that he was told by some old Scotch gentleman that both the wood, as well as the spurious grous, were extant in Scotland within their memory.

We must, however, consider this matter as in a state of obscurity, and that nothing has been advanced on the subject to induce us to believe that the bird in question is any other than a mere variety of the male black grous. Some authors have, indeed, described the female to be of a grey colour, spotted with black.

A singular bird is mentioned in the Naturalist's Calendar, supposed to be a mixed breed between the common fowl and pheasant, shot in the woods. But then, in this case, the male or female was a domesticated bird, and most probably the former. For further particulars, see the article PHEASANT.

* Dr. Fleming says the subject merits attention; Selby passes it over in silence.*

BLACK CHINNED GREBE.—A name for the Dabchick.

BLACK DUCK.—A name for the Scoter.

BLACK EAGLE.—A name for the Eagle (*Aquila albicilla.*)

BLACK GOOSE.—A name for the Brent Goose.

BLACK GROUS.—A name for the Black Cock.

BLACK GUILLEMOT.—A name for the Guillemot.

BLACK-HEADED BUNTING.—A name for the Black Bonnet.

BLACK-HEADED GULL.—A name for the Gull.

BLACK MARTIN.—A name for the Swift.

BLACK-NEBBED CROW.—A name for the Crow.

BLACK NEB.—A name for the Crane.

BLACK OUZEL.—A name for the Blackbird.

BLACK REDSTART (*Sylvia Tithys*, LATHAM.)—* This bird was lately shot at Kilburn, near London. It is easily distinguished from the Redstart, by its dark breast and under parts, the whole of which in the other species are bright chestnut. Two other specimens have been since taken, one near Bristol, the other at Brighton.[1]*

BLACK SAND-PIPER.—A name for the Knott.

BLACK TERN.—A name for the Tern.

BLACK-TOED GULL.—The young of the Dung Hunter.

BLACK-THROATED DIVER.—A name for the Lumme.

BLOOD OF BIRDS.—* This appears to be more highly oxygenated than in other warm-blooded animals; at least it is warmer, of a brighter colour, and circulates more rapidly, the pulse of birds usually running above a hundred beats in the minute. This may also account for their being so voracious; a fauvette (*Sylvia hortensis*) which I had, often consuming more than its own weight of food in the course of a day.*

BLUE-BACKED FALCON.—A name for the Peregrine Falcon.

BLUE BONNET or BLUE CAP.—A name for the Tomtit.

BLUE HAWK.—A name for the Peregrine Falcon.

BLUE TITMOUSE.—A name for the Tomtit.

BLUE-WINGED SHOVELLER.—A name for the Shoveller.

BOATSWAIN.—A name for the Dung Hunter.

BOG BUMPER.—A name for the Bittern.

BOHEMIAN WAX-WING (*Bombycivora garrula*, TEMMINCK.)

* Bombycivora garrula, *Temm.* Man. d'Orn. 1. p. 124.—Bombycilla Bohemica, *Briss.* Orn. 2. p. 333.—Ampelis garrulus, *Linn.* Syst. 1. p. 297. 1.—*Gmel.* Syst. 1. p. 838. sp. 1.—*Lath.* Ind. Orn. 1. p. 363.—Le Jaseur, *Buff.* Ois. 3.

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[1] Yarrel, Mag. of Nat. Hist. iv. 188.

p. 429. t. 26.—*Ib.* pl. Enl. 261.—Grand Jaseur, *Temm.* Man. d'Orn. 1. p. 124. —Garrulus Bohemicus, *Raii*, Syn. p. 85. A.—Rothlich grauerseidenschwantz, *Meyer*, Tasschenb. Deut. 1. p. 204.—Bohemian Chatterer, Br. Zool. 1. No. 112. t. 48.—*Lath.* Syn. 3. p. 91. 1.—*Mont.* Orn. Dict.—*Lewin's* Br. Birds, 2. t. 65.—*Bewick's* Br. Birds.—*Don.* Br. Birds, 1. t. 11.—*Pult.* Cat. Dorset. p. 11.—*Flem.* Br. Anim.—*Selby*, pl. 34. p. 87.*

This is the only species of the genus ever met with in this country, and that not very frequently.

The length of this bird is about eight inches; the size near that of a starling. The bill is black; irides purplish; the head and upper parts vinaceous brown, dashed with ash-colour, lightest on the rump; the feathers on the crown of the head are long, and form a pointed crest reclining backwards, of a chesnut colour; over the eye is a black streak passing from the bill to the hind head; chin and throat black; breast and belly pale purplish ash-coloured brown, lightest towards the vent; the greater coverts of the primaries black, tipped with white; greater quills black, the three first tipped with white, the others with yellow on their outer margins; the secondaries tipped on the outer web with white, terminating in flat horny appendages the colour of red sealing-wax, the number of which varies in different specimens; in that now before us there are five on one side, and six on the other, but sometimes as many as eight are found; the tail is black, tipped with yellow, and dashed with ash-colour at the base; the under coverts of the tail chestnut; legs black.

The female is said to want the red appendages at the end of the quill-feathers, as also the yellow on the wings: all those, however, which have come under our inspection, killed in England, had those characters; but it was not ascertained whether any of them were females. Dr. Latham, who has considered the American species, or Carolina chatterer, as only a variety of this, says both sexes have the wings of a plain colour, and the female has no appendages to the quill-feathers. Mr. Pennant informs us that these birds appear annually about Edinburgh, and feed on the berries of the mountain-ash. We have received it out of Staffordshire, and have known others killed in the more southern counties in the autumn or winter. *As far west as Devonshire, one has been shot in the park of Lord Borringdon, at Saltram.*

*In the winter of 1810, large flocks were dispersed through various parts of the kingdom, and from that period it does not seem to have visited our island till the month of February, 1822, when Selby informs us a few came under his inspection: in the winter of 1823 a few were again observed during a severe storm. Upon the continent its residence is subject to similar uncertainty; very little is known of its

peculiar habits, and the place of its nidification is still a matter of doubt, although it is said to breed in the more northern parts, where it is supposed to build in the holes of rocks. A fine specimen is said to have been shot near Coventry, in December last, where it appeared to associate with the starlings, and not less than twenty have been killed in the counties of Suffolk and Norfolk, during the last three winters.[1]

BOHEMIAN CHATTERER.—A name for the Bohemian Wax Wing.

BOMBYCIVORA (Temminck.)—* Wax Wing, a genus thus characterised. Bill strong, short, and strait; the upper mandible slightly bent at the tip, and notched; nostrils, at the base, of an oval shape and open, concealed by closely set feathers directed forwards; wings long, the first and second quill feathers being the longest; secondary quills having their tips ornamented with a wax-like appendage; legs with three toes before, and one behind, the outer toe joined at its base to the middle one; shank shorter than the middle toe.

This genus has been established by Temminck, who has very judiciously removed it from the genus *Ampelis*, (Chatterer), where it was left by Linnæus and Latham; but which possess distinct and peculiar characters, and belong to a different order.*

BONES OF BIRDS.—* Are nearly all hollow, and communicating with the lungs, are thence filled with air, so as to render them more buoyant for flight. The breast bone (*Sternum*) extends much lower than in quadrupeds, and is distinguished by a ridge like the keel of a ship, except in the ostrich, &c., which do not fly. The bones of the wings are similar to the fore legs of quadrupeds.*

BONXIE.—A name for the Skua.

BOONK (*Ardea minuta*, Linnæus.)

Gmel. Syst. 2. p. 646.—Ind. Orn. 2. p. 683. 27.—*Edw.* t. 275.—Ardea danubialis, *Gmel.*—Little Bittern, Br. Zool. App. p. 537. t. 8.—Arct. Zool. 2. No. 359.—*Lath.* Syn. 5. p. 65. 27.—*Ib.* Supp. p. 235.—*Lewin's* Br. Birds, 4. t. 147.—*Walc.* Syn. 2. t. 128.—*Mont.* Orn. Dict. & Supp.—*Don.* Br. Birds, 3. t. 54.—*Pult.* Cat. Dorset, p. 14.—*Bewick's* Br. Birds, 2. p. 511.—Rufous and Rayed Bittern, *Lath.* Syn.—Le Blongois, *Buff.* 7. p. 395.—Ardeola nævia, *Briss.* 5. p. 500. 47. t. 40. fig. 2.—*Ib.* 8vo. 2. p. 342.—Botaurus rufus, *Briss.*

Provincial.—Long-neck.

This beautiful species is scarce larger than a fieldfare in the body. The length, to the end of the tail, is fifteen inches; the bill two inches long, dusky at the point, yellow on the sides; the top of the

[1] Mag. Nat. Hist. iv. p. 165

head, back, and tail, black, glossed with green; the fore part of the neck, breast and thighs, buff colour; belly and vent white; at the shoulders a large chestnut spot; the larger coverts of the wings whitish; the lesser coverts yellowish buff; quill feathers black; legs and toes dusky green; thighs feathered to the knees; middle claw serrated on the inner side.

The above is the description of the male; the female is supposed to be the *Ardea minuta*, Linn. Syst. 240. 26. It differs from the other sex in the plumage of the upper part of the body being brown, margined with pale rufous; beneath, the feathers are the same, but paler, and more deeply margined.

The eggs are said to be white, about the size of those of the blackbird, four or five in number, which are placed on the ground upon a few dried flags.

The Boonk is a very rare bird with us; few instances only are recorded of its being killed in England. A male was shot near Bath, in the autumn of 1789, perched on the stump of a tree on the bank of the Avon. In the month of May, 1808, a female was shot contiguous to the river Creed, and *Dr. Fleming tells us that one was shot at Sunda, Orkney, in 1805. It is more frequent in some parts of the European continent, particularly in Switzerland, and, as Temminck informs us, in Holland.*

BOTTLE-NOSE.—A name for the Puffin.

BOTTLE TIT.—(*Parus caudatus*, Ray.)

*Parus caudatus, *Linn.* Syst. 1. p. 342. 11.—*Gmel.* Syst. 1. p. 1010. sp. 11.—*Lath.* Ind. Orn. 2. p. 569. sp. 20.—*Raii*, Syn. p. 74. A. 5.—*Will.* p. 176. t. 43.—Parus longicaudatus, *Briss.* 3. p. 570. 13.—Le Mesange à longue queue, *Buff.* Ois. 5. p. 437. t. 19.—*Ib.* pl. Enl. 502. f. 3. female.—*Temm.* Man. d'Orn. 1. p. 296.—Schwantzmeise, *Bechst.* Naturg. Deut. 3. p. 879.—*Meyer*, Tasschenb. Deut. 1. p. 272.—Staartmees, *Sepp.* Nederel. Vög. 1. t. p. 49.—Long-tailed Titmouse, Br. Zool. 1. No. 166.—Arct. Zool. 2. p. 248. 9.—*Will.* (Ang.) p. 242.—*Lath.* Syn. 4. p. 550.—*Ib.* Sup. p. 190.—*Albin*, 2. t. 57. fig. 1.—*Lewin's* Br. Birds, 3. t. 121.—*Mont.* Orn. Dict.—*Walc.* Syn. 2. p. 249.—*Pult.* Cat. Dorset. p. 10.—*Bewick's* Br. Birds, 1. t. p. 243.—*Shaw's* Zool. 10. p. 59.—Selby, plate 51. fig. 5. p. 233.

Provincial.—Longtail Mag. Longtail Pie. Poke Pudding. Huckmuck. Bottle Tom. Mum-ruffin.*

This is the smallest of the tribe; the weight about two drams; length five inches and a quarter. The bill is very short and black; irides hazel, edges of the eyelids yellow. On the crown of the head is a white streak surrounded by black, which, rising at the base of the bill, passes over each eye, and joining behind the head, forms a broad streak down the back to the rump; the rest of the plumage above is of a purplish hue; the sides of the head, throat, and under part of the neck, white, mixed with grey; from that to the vent dull purplish; quill-

feathers black; those next the body edged with grey; coverts black; the tail consists of twelve feathers of unequal length; the four middle ones are wholly black; the next has a small white mark on the outer web, near the point; the others tipped and obliquely marked with white on the exterior webs; the second feathers from the middle are the longest, measuring three inches and a half; the outer feathers on each side only one inch and three quarters; the legs black. In some the whole upper part of the neck is black; the under parts greyish white, except on the sides and vent, which are of a pale vinaceous colour; and across the breast is an obscure dusky band.

This very elegant and singular species is confined chiefly to the woods and thickets, where it makes a curious oval nest in the fork of some bush or branch of a tree. In this particular it deviates from the rest of the genus, which invariably build in some hole,—the bearded and crested tits perhaps excepted,—but which remains to be discovered. The nest of this bird, however, is equally well secured, being made of white moss and liverwort, curiously and firmly wove together with wool, covered at the top, with only a small hole on the side, and lined with a prodigious quantity of feathers. This singular fabric is a work of time, taking four or five weeks to complete it.

*Derham is mistaken in saying that this bird employs "the webs of spiders cast out from them when they take their flight, with which the other materials are strongly tied together;"[1] for I am certain that no bird could manage to work with the threads of floating gossamer, which would cling to its bill, and only embarrass it to get rid of them. On the contrary, I find in a specimen of the nest now before me, the basis is composed of green mosses, (*Hypna*, &c.,) neatly and carefully felted together with fine wool, while the outside consists for the greater part of white and grey tree lichens, (*Parmeliæ*, &c.,) in small bits, intermixed with the egg nests of spiders,[2] from the size of a pea and upwards, part of which are drawn out to assist in felting; so that when the texture of the nest is stretched, portions of fine gossamer-like threads appear among the fibres of the wool,—the circumstance, no doubt, which misled Derham. His description, however, is otherwise good. "Having," he says, "neatly built and covered her nest with these materials without, she thatches it on the top with branchy tree moss, (*Hypnum proliferum*,) or such like broad whitish moss, to keep out rain, and to dodge the spectator's eye; and within she lineth

[1] Physico Theology, ii. 24, Note, 11th edit.

[2] See Insect Transformations, pp. 93—4.

it with a great number of soft feathers, so many, that I confess I could not but admire how so small a room could hold them; especially that they could be laid so close and handsomely together, to afford sufficient room for a bird with so long a tail and so numerous an issue as this bird commonly hath." A still more minute and correct description is given by Aldrovand. "It was," says he, "of an oblong figure, like a pine-apple; of two ralms length, and one broad; round, built of sundry materials; namely, both tree and earth moss, caterpillars' webs, and other woolly-like matter and feathers, with that order and art, that the chief and middle strength of the work or texture of the walls was of that yellowish green moss, the common hairy moss, that silk-like substance, and tough threads, *resembling* those filaments suspended in the air, and flying up and down like spiders' webs, which are accounted signs of fair weather, connected and interwoven, or rather entangled so firmly together, that they can hardly be plucked asunder. Of the interior capacity, all the sides, it seemed, as well as the bottom, were covered and lined with feathers, for the more soft and warm lying of the young. The outmost superficies round about was fenced and strengthened with fragments of that leafy moss which every where grows on trees firmly bound together. In the fore part, respecting the sun-rise, and that above, (where an arched roof, of the same uniform matter and texture with the sides and bottom, covered the nest,) was seen a little hole, scarce big enough, one would think, to admit the old one."[1]*

Low situations seem to be its delight, especially about such trees and hedges as are covered with white moss and lichen, amongst which it most commonly places its nest.

The egg is less than that of any British bird, except the gold-crested wren, weighing about twelve grains; colour white, sparingly marked with small rust-coloured spots towards the larger end. We are informed that this little creature will lay upwards of twenty eggs before she sits; but we have never been able to discover more than twelve, and more frequently nine or ten. Even this is a surprising quantity of prolific matter produced from so small a body in so short a space of time as ten days, being equal to the weight of the bird. To supply this great expenditure of animal matter, as well as the ordinary excretion, a supply of food considerably more than its own weight is absolutely necessary.

*The young, after quitting the nest, continue with their parents during autumn and winter, forming distinct families, which separate early in

[1] Aldrovandi Ornithologia, xvii. Architecture of Birds, p. 332.

the spring, or as soon as the pairing season commences. The flight of this bird, although usually confined to short distances, is very rapid, and has not unaptly been compared to the passage of a dart through the air. While in motion, it is always uttering a small twittering note, by which means it keeps the family together. It is often seen in company with the golden-crested wren, and others of its own tribe.*

Its food consists of insects and their *larvæ*, in search of which it pecks off the buds from the trees. *"It seems," says Knapp, "the most restless of little creatures, and is all day long in a state of progression from tree to tree, from hedge to hedge, jerking through the air with its long tail like a ball of feathers, or threading the branches of a tree, several following each other in a little stream; the leading bird uttering a shrill cry of *twit, twit, twit*, and away they all scuttle to be first, stop for a second, and then are away again, observing the same order and precipitation the whole day long. The space travelled by these diminutive creatures, in the course of their progresses from the first move till the evening roost, must be considerable; yet, by their constant alacrity and animation, they appear fully equal to their daily task."*

BOTTLE TOM.—A name for the Bottle Tit.

BRAMBLIN.—The young of the Snow Bunting.

BRAMBLING (*Fringilla montifringilla*, Linnæus.)

* Fringilla montifringilla, *Linn.* Syst. 1. p. 318. 4.—Faun. Suec. No. 233.—*Gmel.* Syst. 1. p. 902. sp. 4.—*Lath.* Ind. Orn. 1. p. 439. sp. 17.—*Raii*, Syn. p. 88.—*Will.* p. 187. t. 45.—*Briss.* 3. p. 155.—Fringilla lulensis, *Gmel.* Syst. 1. p. 902. sp. 5.—*Lath.* Ind. Orn. 1. p. 452. sp. 63. young female.—Le Pinson d'Ardennes, *Buff.* Ois. 4. p. 124. t. 14.—*Ib.* pl. Enl. 54. f. 2. male.—Gros-Bec d'Ardennes, *Temm.* Man. d'Orn. 1. p. 360.—Chardonneret à quatre raies, *Buff.* Ois. 4. p. 210.—Berg-fink, *Bechst.* Naturg. Deut. 3. p. 97.—*Meyer*, Tasschenb. Deut. 1. p. 151.—*Frisch*, t. 3. f. 2.—Brambling, or Mountain Finch, Br. Zool. 1. No. 126.—Arct. Zool. 2. p. 381. E.—*Lewin's* Br. Birds, t. 80.—*Albin*, 3. t. 64.—*Will.* (Ang.) p. 254. t. 45.—*Lath.* Syn. 3. p. 261. 13.—*Mont.* Orn. Dict.—*Walc.* Syn. 2. t. 218.—*Don.* Br. Birds, 4. t. 85.—*Pult.* Cat. Dorset, p. 12.—*Bewick's* Br. Birds, 1. t. p. 163. male.—*Shaw's* Zool. 9. p. 444. t. 65. f. 2. copy from Bewick.—Lulean Finch, *Lath.* Syn. 8. p. 278.—*Penn.* Arct. Zool. 2. p. 380. B.—*Selby*, pl. 54. figs. 8. 9. p. 272.

Provincial.—Kate.*

This species is rather larger than the chaffinch. Length about six inches.

The bill is yellow, tip black; irides dusky. The head, hind part of the neck, and back, black; some of the feathers edged with rusty brown and ash-colour, which last predominates on the back of the head and side of the neck; the throat, breast, and upper coverts of the wings, ferruginous orange; middle coverts yellowish white; the greater coverts

black, tipped with orange; quill-feathers black, edged with yellow on their exterior webs; on three or four of the primores a spot of white runs through the whole of the exterior web, and forms an oblique bar when the wing is closed; the belly and rump white; on the sides above the thighs are a few round black spots; the tail is a little forked, the exterior feather white on the outer web, the others black, except the two middle, which are edged and tipped with ash-colour; legs greyish brown.

The female is much less bright in the colour of the plumage: the side of the head and back of the neck is grey; on the latter are two dusky lines passing from the head downwards; the top of the head and back dusky, each feather deeply margined with grey, which gives those parts a pretty mottled appearance; the rufous on the breast and wings very faint, but the markings correspond with those of the other sex.

We have not been able to discover that this bird has ever bred with us, but they are frequently seen on the coast of Kent and Sussex, in the winter, in large flocks, and in such an exhausted state as to suffer themselves to be taken. They are also found in the interior parts of the kingdom at that season, in company with the chaffinches and yellow-hammers. By observation on those we have kept in confinement, it is a hardy, bold bird, feeding on most kinds of seed usually given to caged birds; it is said to be particularly fond of beech mast. It is common in many parts of the European continent, and most probably breeds in the northern parts of it: it is said to build in fir trees, and form a nest with moss, lined with wool and feathers, and to lay four or five yellowish spotted eggs. *Fleming informs us that it changes its colour with the season, becoming whiter in severe winters.*

BRANTAIL.—A name for the Red-start.

BRENT GOOSE (*Anser Brenta*, Willughby.)

*Anas Bernicla, *Linn.* Syst. 1. p. 198.13.—*Gmel.* Syst. 2. p. 513.—Ind. Orn. 2. p. 844. 3.—*Temm.* 2. p. 824.—Brenta, *Raii*, Syn. p. 130. 8.—*Will.* p. 275. t. 69.—*Briss.* 6. p. 304. 16. t. 31.—*Ib.* 8vo. 2. p. 442.—Le Cravant, *Buff.* 9. p. 87.—Brent or Brand Goose, Br. Zool. 2. No. 270.—*Ib.* fol. 151.—*Ib.* Add. t. 9.—Arct. Zool. 2. No. 478.—*Ib.* Supp. p. 75.—*Albin*, 1. t. 93.—*Will.* (Ang.) p. 360.—*Haye's* Br. Birds, t. 25.—*Lath.* Syn. 6. p. 467. 27.—*Lewin's* Br. Birds, 7. t. 243.—*Pult.* Cat. Dorset, p. 20.—*Walc.* Syn. 1. t. 63.—*Lister*, Phil. Trans. 15. p. 1159.—*Flem.* Br. Anim. 126.

Provincial.—Wilk Bob. Road Goose. Clatter Goose.*

This species is considerably less than the bernacle. The specimen now before us, weighed two pounds twelve ounces; length twenty-nine inches; bill short and black; irides dusky or dark brown; the head, neck, and upper part of the breast black; on each side the small part of

the neck is a patch of white, mixed with black; the back, scapulars, and wing coverts, are of a brownish slate-colour, dashed with cinereous; quills black; the under parts of the body slate colour; the sides a little barred with white; behind the thighs, the vent, and under tail coverts, white; the rump is black; upper tail coverts white; tail black; legs black.

The female is rather less; the plumage not so dark, and the feathers of the body above and beneath margined with grey, greatly so on the wing coverts; the lower part of the rump, as well as the tail coverts, are white.

Young birds are said to want the white mark on the neck, *and the feet have a reddish tinge.*

These birds appear on our coast in winter, particularly in the West of England, but are most plentiful in Ireland, where they are taken in nets placed across the rivers, and are esteemed good eating: they are in greatest abundance in those rivers that empty themselves into the northern part of the Irish channel.

It is said to be easily tamed. They breed far north, and return southward in autumn. In Shetland they are called Horra Geese. They are common at Hudson's Bay, and probably breed there. We are informed some of these birds breed in Ireland: however that may be, the greater part retire more northward for that purpose.

BROAD BILL.—A name for the Shoveller.

BRONZIE.—A name for the Cormorant.

BRAMBLE FINCH.—A name for the Brambling.

BRAZILIAN CURLEW.—A name for the young of the Ibis.

BROOK OUZEL.—A name for the Bilcock and Dipper.

BROWN-HEADED GULL.—The young of the Laughing Gull.

BROWN-HEADED DUCK.—A name for the Golden Eye.

BROWN LINNET.—A name for the Linnet.

BROWN SANDPIPER.—A name for the Sandpiper.

BROWN SNIPE (*Scolopax grisea*, GMELIN.)

Scolopax grisea, *Gmel.* Syst. 1. p. 658.—Ind. Orn. 2. p. 724, 33.—*Temm.* 2. p. 649.—Brown Snipe, Arct. Zool. 2. No. 369.—*Lath.* Syn. 5. p. 154. 28.—*Flem.* p. 106.

The weight of this species is three ounces and a quarter; length, from the apex of the bill to the end of the tail, eleven inches; to the end of the middle toe thirteen inches and a half.

Bill two inches and a half long, rather inclining downwards at the point, not so slender as that of the common snipe, and spreads a little broad

and compressed near the end, of a dusky colour, lightest at the base; upper mandible rather the longest, serrated within along the middle of the roof; both mandibles punctured or rough near the tip; irides dusky. From the bill to the eye a dusky stroke, above that, passing over the eye, a white one; cheeks and throat white, with a few brown streaks on the former; upper and under eyelids white; the crown of the head and neck cinereous brown, lightest on the fore part of the latter, and on the former the feathers are dusky in the middle; back and scapulars dark brown, margined with cinereous and rufous-brown; greater quills dusky, the interior ones, and the largest coverts immediately impending them, slightly tipped with white; shaft of the first quill white, the second grey; the smaller coverts above and just below the bastard wing dusky and white; the rest of the coverts cinereous-brown, darkest in the middle of each feather; the secondary quills dusky brown, tipped and margined with white; tertials cinereous-brown, darkest towards the end, and pale at the edges; upper breast like the fore part of the neck, darker down the shafts; lower breast and belly white; under wing coverts and under scapulars white, prettily marked with angular dusky streaks; thighs faintly spotted the same; lower part of the back under the scapulars white; rump and upper tail coverts elegantly barred with black and white; those on the former, in form of sublunated black spots; under tail coverts reach nearly to the end of the tail, which, with the sides of the vent, are rufous-white, barred with dusky; the same markings, but fainter, extend along the sides under the wing; the tail consists of twelve somewhat pointed feathers, all thickly barred with black and white on both webs, the black bars much the broadest; the two middle feathers rather the longest, a little tinged with ferruginous at the tip; legs yellow olivaceous-green.

The bird here described is a male, and was shot in the beginning of October on the coast of Devonshire. It seems to vary so little in the essential characters from the Brown Snipe described by Mr. Pennant and Dr. Latham, that we cannot hesitate to pronounce it a variety of that bird. It has not to our knowledge been noticed before as a British species, and has only been found in America, on the coast of New York.

BROWN STARLING or Solitary Thrush (*Turdus solitarius*, Latham.)—*Much confusion appears to exist with respect to this bird, adding a strong proof among many others of the opinion of Temminck, "that there are few genera of the old passerines which contain a greater number of species badly arranged, than those of Latham's *Sturnus* and *Turdus*. Montagu, in his Supplement, describes a bird under the name

of Solitary Thrush, with great minuteness, as a rare British bird, greatly resembling the starling, and as nearly allied to it as to the thrush. Dr. Latham agreed with him that the specimen described, was "a trifling variety" of the Solitary Thrush. But the synonimes which he gives all refer to the blue thrush, (*Turdus cyaneus*, GMELIN,) the female of which, as well as that described by Willughby,[1] does not at all accord with Montagu's description.

So far from giving it as a rare bird, Mr. Knapp, writing in Glocestershire, says, "the Brown Starling or Solitary Thrush (*Turdus solitarius*) is not an uncommon bird with us. It breeds in the holes and hollows of old trees, and, hatching early, forms small flocks in our pastures, which are seen before the winter starling, for which bird, by its manners and habits, it is generally mistaken. It will occasionally, in very dry seasons, enter our gardens for food, which the common stares never do; and this year (1826) I had one caught in a trap, unable to resist the tempting plunder of a cherry-tree, in conjunction with half the thrushes of the neighbourhood." He adds, "I know no description that accords so well with our bird as that in Bewick's Supplement, excepting that the legs of those which I have seen are of a red brown colour, the bill black, and the lower mandible margined with white; but age and sex occasion many changes in tints and shades. This species possesses none of those beauties of plumage so observable in the common starling; and all those fine prismatic tintings that play and wander over the feathers of the latter, are wanting in the former. Its whole appearance is like that of a thrush, but it presents even a plainer garb; its browns are more dusky and weather-beaten, and for the beautiful mottled breast of the throstle, it has a dirty white and a dirtier brown. I scarcely know any bird less conspicuous for beauty than the Solitary Thrush: it seems like a bleached, way-worn traveller, even in its youth."[2]

Other naturalists give a very different account of the bird in question. Selby, speaking of the common starling, (*Sturnus vulgaris*, LINN.) says, "the young birds, previous to autumn, or the first moult, are of a uniform hair-brown colour, lightest upon the throat or upper parts. In this state it has been described by Montagu and Bewick, as a distinct species, under the name of Solitary Thrush."[3] Dr. Fleming also says of the starling, "young, of a uniform hair brown, constituting the *Passer*

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[1] Ornithology by Ray, page 191.

[2] Journal of a Naturalist, p. 207. [3] Illustr. p. 93.

solitarius of Willughby, Orn. 140, and the Solitary Thrush of Montagu."[1] It is most evident from this that he had not examined Willughby's description. Wilson describes an American bird under the name of the Hermit or Solitary Thrush (*Turdus solitarius*) which has little if any resemblance to the preceding. The dull cream-colour of the throat marked with large dark-brown pointed spots in the American bird, accords not at all with the pale yellowish-brown, mottled with a darker shade, of the bird described by Montagu.[2]

It appears to me that so far as relates to the British bird, the subject requires farther investigation, and might soon be set at rest by rearing individual birds.

Syme is of opinion that it is a distinct species, from its appearing in mature adult feather, while its plumage is lighter and more of a brown colour than that of the young starling, which he describes as of a dull dingy black, with loose, immature, bunchy plumage. Above all, the song of the brown thrush is said to be very superior in richness, mellowness and compass, to any of the thrushes, resembling, but much excelling, the notes of the throstle.

It is not improbable, however, that the latter circumstances have been taken from a ring-ouzel (*Merulus torquatus*). I am at least very doubtful of any European species excelling the song thrush, though Wilson, who was a good judge, thinks several of the American ones far superior.*

BROWN TERN.—A name for the Tern (*Sterna hirundo*) in its immature plumage.

BULBUS GLANDULOSUS.—*A zone of glands encircling the upper entrance of the stomach, or rather the lower end of the gullet, and serving to secrete the gastric or digestive fluid.*

BULLFINCH (*Pyrrhula vulgaris*, TEMMINCK.)

*Pyrrhula vulgaris, *Temm.* Man. d'Orn. 1. p. 338.—Loxia pyrrhula, *Linn.* Syst. 1. p. 300. 4.—Fauna Suec. No. 225.—*Gmel.* Syst. 1. p. 846. sp. 4.—*Lath.* Ind. Orn. 1. p. 387. sp. 56.—*Raii*, Syn. p. 86. A.—*Will.* p. 130. t. 43.—Le Bouvreuil, *Buff.* Ois. 4. p. 372. t. 17.—*Ib.* pl. Enl. 245. M. & F.—Le Bruant ecarlate, *Sonn.* nov. edit. de *Buff.* Ois. 13. p. 114.—Bouvreuil commun, *Temm.* Man. d'Orn. 1. p. 338.—Rothburstiger Gimpel, *Bechst.* Naturg. Deut. 3. p. 55.—*Meyer*, Tasschenb. Deut. 1. p. 147.—Bullfinch, Br. Zool. 1. No. 116.—Arct. Zool. 2. No. 353. A.—*Albin*, 1. t. 59, 60.—*Lath.* Syn. 2. p. 143. 51.—*Ib.* Supp.—*Lewin's* Br. Birds, 2. t. 70.—*Mont.* Orn. Dict. 1.—*Haye's* Br. Birds, t. 37.—*Walc.* Syn. t. 209.—*Pult.* Cat. Dorset, p. 11.—*Bewick's* Br. Birds, 1. t. p. 138.—*Shaw's* Zool. 9. p. 318. t. 52.—*Selby*, pl. 54. fig. 1. 2. p. 258.

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[1] Br. Anim. p. 86. [2] Architecture of Birds, p. 206.

Provincial.—Hoop. Nope. Pope. Red-hoop. Tony-hoop. Alp. Nope.

This species is so well known as to make it unnecessary to be very particular in description.

The bill is black, short, and thick; irides dusky; the crown of the head is black; upper part of the neck and back fine cinereous grey; cheeks, breast, and belly, bright crimson; vent white; coverts of the wings crossed with a white line just above the quill-feathers, which last are dusky; rump white; tail black.

The female is very unlike the male in plumage, except in the crown of the head, which is black; the whole bird besides is of a dirty brown; rump white.

It makes a nest the latter end of April or beginning of May, preferring the thickest places for that purpose, most frequently in a black or white-thorn bush, either in woods or hedges. The nest is composed of small dry twigs, lined with fibrous roots.

*I am at a loss to conceive on what authority M. Montbeillard describes this nest as consisting of moss, lined with soft materials, with an opening said to be the least exposed to the prevailing wind; and no less why M. Temminck says "it builds in the most elevated and least accessible forks of trees."[1] I have seen a considerable number of the nests and never found any of these circumstances hold good. I have sometimes found them built in low thick bushes; but most commonly on the flat branch of a spruce pine or silver fir. In the former case, the Bullfinch lays a foundation of birch twigs, placed crossways, in the forks of the branches, paying more attention to the security of the fabric than to its neatness. But when she gets into a spruce pine, finding that the flat branch itself is an excellent foundation, she uses a much smaller number of sticks. When she has reared a ground-work to her mind, she proceeds to collect a quantity of flexible fibrous roots which she intertwines into a sort of basket work rather loose, and only sufficient to hold the eggs and young from rolling down. The inside is wholly lined with fine roots, without any hair or feathers. Dr. Latham says she rarely uses moss.[2] I should be inclined, from my own observation, to say never; nor have I ever found this nest in high and inaccessible branches; seldom so high as five or six feet from the ground, as M. Montbeillard says, but usually about four, and sometimes even lower.[3] Sepp's figure represents it as built in a cleft, but so loose

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[1] Man. d'Orn. i. p. 340. [2] Gen. Hist. vii. p. 380.
[3] Architecture of Birds, p. 201.

and irregular, as to indicate its having been drawn from a damaged specimen.*[1]

The eggs are four in number, of a bluish white, speckled, and streaked with purple, rather larger than those of a linnet; the young birds at first resemble the female, but without the black on the head. This, as well as the crimson on the breast of the male, does not appear till two months after they leave the nest.

The Bullfinch is gregarious; seldom more than one brood is seen together, and they are most commonly observed in pairs. It is not migratory, but frequents our woods and thickets all the year; in the spring it affects the garden and orchards, where it is a most destructive enemy to buds of fruit-trees.

*"The Bullfinch," says Mr. Knapp, "is gifted with no voice to charm us; it communicates no harmony to the grove: all we hear from it is a low and plaintive call to its fellows in the hedge. It has no familiarity or association with us, but lives in retirement in some lonely thicket ten months in the year. At length, as spring approaches, it will visit our gardens, an insidious plunderer. Its delight is in the embryo blossoms wrapped up at this season in the bud of a tree; and it is very dainty and curious in its choice of this food, seldom feeding upon two kinds at the same time. It generally commences with the germs of our larger and most early gooseberry: and the bright red breasts of four or five cock birds, quietly feeding on the leafless bush, are a very pretty sight, but the consequences are ruinous to the crop. When the cherry buds begin to come forward, they quit the gooseberry, and make tremendous havoc with these. I have an early wall cherry, a mayduke by reputation, that has for years been a great favourite with the bullfinch family, and its celebrity seems to be communicated to each successive generation. It buds profusely, but is annually so stripped of its promise by these feathered rogues, that its kind might almost be doubted. The orleans and green-gage plums next form a treat, and draw their attention from what remains of the cherry. Having banquetted here awhile, they leave our gardens entirely, resorting to the fields and hedges, where the sloe-bush in April furnishes them with food. May brings other dainties and other avocations."

One of this species, shot by Captain Mitford, had the wings entirely white, and in confinement it is not unusual for them to turn wholly black, supposed to proceed from feeding it too much on hempseed.

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[1] Nederlandsche Vogelen, ii. Deel.

Its natural notes are few, but remarkably soft, and delivered so low as often to escape the attention of a common observer; the call notes are equally simple but more audible. When caged it becomes very docile, and may be taught a variety of tunes, for which reason, as well as for its beauty, it is frequently deprived of liberty.*

BUMBLE.—A name for the Bittern.

BUMPY COSS.—A name for the Bittern.

BUNTING (*Emberiza miliaria*, LINNÆUS.)

*Emberiza miliaria, *Linn.* Syst. 1. p. 308. 3.—Faun. Suec. p. 228.—*Lath.* Ind. Orn. 1. p. 402. sp. 12.—*Gmel.* Syst. 2. p. 868. sp. 3.—Emberiza alba, *Raii*, Syn. p. 93. A. 1.—*Will.* p. 195. t. 40.—Cynchramus, *Briss.* 3. p. 292. 10.—Le Proyer, *Buff.* Ois. 4. p. 355. t. 16.—*Ib.* pl. Enl. 233.—Bruant Proyer, *Temm.* Man. d'Orn. 1. p. 306.—Der Grauammer, *Bechst.* Naturg. Deut. 3. p. 262.—*Meyer*, Tasschenb. Deut. 1. p. 180.—*Frisch*, Vög. t. 6. f. 2. B.—Bunting, Br. Zool. 1. No. 118.—Arct. Zool. 2. p. 366. B.—*Albin*, 2. t. 50.—*Will.* (Ang.) p. 267. t. 40.—*Lath.* Syn. 3. p. 171.—*Mont.* Orn. Dict.—*Lewin's* Br. Birds, 2. t. 74.—*Walc.* Syn. 2. t. 213.—*Pult.* Cat. Dorset, p. 11.—*Bewick's* Br. Birds, 1. p. t. 141.—*Low's* Faun. Orcad. p. 60.—*Shaw's* Zool. 9. p. 360.—*Selby*, pl. 52. fig. 1. p. 239.

Provincial.—Corn Bunting. Bunting Lark. Ebb.*

The weight of this species is nearly two ounces; length seven inches and a half. Bill brown; irides dark hazel; head and upper parts light brown, inclining to olive; the under parts yellowish white, with a dusky stroke down the shaft of each feather, except on the belly, which is quite plain; quill-feathers dusky, with lighter edges; tail somewhat forked and dusky; the legs are of a dull light yellow.

Male and female alike.

The Common Bunting seems to delight in champaign countries abounding with corn, and is rarely found in uncultivated parts, or grass fields, distant from arable land. In the winter these birds become gregarious, and sometimes visit the farmers' yards. "* I witnessed this morning," says Mr. Knapp, "a rick of barley, entirely stripped of its thatching, which this Bunting had effected by seizing the end of the straw, and deliberately drawing it out to search for any grain that might yet remain. The sparrow and other birds will burrow in the stack, and pilfer the corn, but the deliberate operation of unroofing the edifice appears to be peculiar to the Bunting."* When it sings (if it can be called a song) it generally assumes the loftiest branches of a bush, or some low tree; or even perched on the top of a dock it cheers its patient incubating mate with a screaming inharmonious note* (termed expressively by Mr. Low, a *skirl.*)* The nest is placed on the ground, formed externally of straw, lined with fibrous roots or dry grass, sometimes finished with long hairs. The eggs are generally four in number,

of a dirty white, spotted and veined with reddish brown and ash-colour; their weight about one dram.

These birds are sometimes brought to market, and sold for larks, to which they are little or nothing inferior, but are easily distinguished by the form of the bill, and the tooth-like knob in the roof of the mouth, by the most common observer. It is observed in small flocks as far north as Zetland in the winter, but returns in the spring.

* Bechstein informs us that this species is pretty generally spread throughout Europe and the north of Asia, and is common in many parts of Germany, where it frequents the fields, meadows, and highways, perching on the topmost branches of willows and other trees in the hedge-rows, or on a mound or knoll, but the latter does not accord with our observations. They are caught in Germany by means of a decoy bird in the autumn, and in winter about the farm-yard, with a lime twig attached to a stick; in spring they are taken by means of a bird-call.*

BUNTING CROW.—A name for the Crow.

BUNTING LARK.—A name for the Bunting.

BURSA FABRICII.—* A bag or purse of curious structure, which secretes a thick mucus. It is connected with the straight gut (*Rectum*).*

BUSTARD (*Otis tarda*, Linnæus.)

*Otis tarda, *Linn.* Syst. 1. p. 264. 1.—*Gmel.* Syst. 1. p. 722. sp. 1.—*Lath.* Ind. Orn. 2. p. 658. sp. 1.—*Raii*, Syn. p. 58. A. 1.—*Will.* p. 129. t. 32.—*Briss.* 5. p. 18. 1.—L'Outarde, *Buff.* Ois. 2. p. 1. t. 1.—*Ib.* pl. Enl. 245. male.—Outarde barbue, *Temm.* Man. d'Orn. 2. p. 506.—Der Grosse Trappe, *Bechst.* Naturg. Deut. 3. p. 1432.—*Meyer*, Tasschenb. Deut. 1. p. 308.—*Frisch*, Vög. t. 106. female, and No. 106. Supp. the male.—Great Bustard, Br. Zool. 1. No. 98. t. 44. male, bad fig.—Arct. Zool. 2. No. 186.—*Ib.* Supp. p. 63.—*Will.* (Ang.) p. 178. t. 32.—*Lath.* Syn. 4. p. 796.—*Albin*, 3. t. 38, 39.—*Edw.* t. 79, 80.—*Lewin's* Br. Birds, 4. t. 139.—*Mont.* Orn. Dict.—*Ib.* Supp.—*Walc.* Syn. 2. t. 173.—*Pult.* Cat. Dorset, p. 6.—*Bewick's* Br. Birds, 1. p. t. 314. correct fig. of male.—*Selby*, pl. 64. p. 326.*

This is the largest of the British birds, sometimes weighing as much as thirty pounds. The bill is dusky; irides light hazel; head and neck ash-coloured, inclining to brown on the top of the head; the lower part of the neck behind almost bare of feathers; the back and lesser coverts of the wings elegantly barred with black and light rust colour; greater coverts pale cinereous; quills black, slightly tipped with white; belly white; the tail consists of twenty feathers; the middle ones are of a light rust colour, barred with black; the two outer ones almost white; with two or three small bars of black; legs dusky brown.

The female weighs about ten or twelve pounds. The crown of the head is deep orange-brown, crossed with transverse black lines; the rest

of the head brown; lower part of the neck before ash-coloured, in other respects like the male, except in not having the long tuft of feathers growing from each side of the lower mandible, so conspicuous in that sex when arrived at maturity.

The male has also a very capacious pouch, situated along the fore part of the neck, the entrance of which is under the tongue, capable of holding several quarts of water; it is said not less than seven. The size, however, of this pouch, or bag, seems to be somewhat exaggerated, for we think it impossible the bird could fly with such an addition of weight before its wings, which would throw it out of the centre of gravity. We see the heron, and many other birds, obliged to extend their legs behind, and contract their necks when flying, in order to balance themselves on the wing. Seven quarts of water are nearly equal to fourteen pounds weight, and certainly more than the bird could carry in that situation. The pouch, however, is large, as may be seen in the Leverian Museum. This, however, is only discoverable in adults, as it is most likely intended for the purpose of furnishing the female and young, in the breeding season, with water, which, in general, is only to be procured at a distance, upon the dry and extended downs they inhabit.

The Bustard is only found upon the large extensive plains, and is almost extinct, except upon those of Wiltshire, where it is become very scarce within these few years. It is an extremely shy bird, and difficult to be shot. Young ones have frequently been taken by the shepherds' dogs before they are capable of flight; and their eggs are eagerly sought after for the purpose of hatching under hens. Half-a-guinea is no unusual price for an egg, and ten or twelve guineas a pair for young birds not full grown. A person at Tilshead, contiguous to the downs in Wiltshire, has reared a great many in this way; and the consequence will be a total extinction in a few years.

In 1813 we were informed by the shepherds that they had not been seen for the last two or three years in their favourite haunts, on the Wiltshire downs, where we have often contemplated this noble bird with pleasure, regarding them as an object well worthy of every attempt to cultivate in their native plains, since every attempt to domesticate them had proved abortive. In a state of domestication the length of their days is so reduced, that it seldom exceeds two or three years, and they never have shewn any inclination to breed. *Selby informs us that his enquiries lead him to the conclusion that the breed is now entirely extinct. In 1804 one was shot and taken to Plymouth market, where

a publican purchased for a shilling what would have fetched two or three guineas where its value was known : this rare wanderer was, however, so entirely unknown, that it was rejected at the second table as improper food, in consequence of the pectoral muscles differing in colour from the other parts of the breast, a circumstance not unusual in birds of the grous kind. Some country gentlemen supping at the inn the following evening, and hearing of the circumstance, desired that they might be introduced to the princely bird, and partook of it cold at their repast.

These birds pair early in the spring. The female lays two eggs on the bare ground, which are about four weeks hatching. The young follow the dams soon after they part from the egg, but are not capable of flying for some time. The egg is larger than than of a turkey, of an olive-brown colour, blotched with pale ferruginous and ash-coloured spots. Their food is green corn, the tops of turnips, and various other vegetables, as well as worms ; but they have been known to eat frogs, mice, and young birds of the smaller species. It is not properly migrative with us, as it only leaves its usual haunts in very severe winters, when the downs are covered with snow for some time. Pressed by hunger, it repairs to the more enclosed and sheltered situations in small flocks, and even strays to a great distance.

These occasional migrations always prove fatal. So large an object soon attracts notice, and it rarely escapes the number of its pursuers. This noble bird was formerly found in the woods of Yorkshire, and even as far as Scotland, as we are informed by Hector Boëce, and Sir Robert Sibbald. It is common in some parts of Russia, and the deserts of Tartary, also in some parts of Germany, but Temminck says it is rare in Holland.*

BUTCHER-BIRD (*Lanius excubitor*, Linnæus.)

*Lanius excubitor, *Linn.* Syst. 1. p. 135. 11.—Faun. Suec. No. 80.—*Gmel.* Syst. 1. p. 300. 11.—*Lath.* Ind. Orn. 1. p. 67. sp. 6.—Lanius, seu Collurio cinereus major, *Raii*, Syn. p. 18. A. 3.—*Will.* p. 53. t. 10.—*Briss.* 2. p. 141. 1.—Greater Butcher Bird, *Will.* p. 87.—*Albin*, 2. p. 13.—Pie Grieche, *Buff.* Ois. 1. p. 296. t. 20.—*Ib.* pl. Enl. 445.—*Temm.* Man. d'Orn. 1. p. 142.—Grauer Wurger, *Meyer*, Tasschenb. Deut. 1. p. 87.—*Frisch*, t. 59.—Blaauwe Klauwier, *Sepp.* Nederl. Vög. t. p. 121.—Great Cinereous Shrike, Br. Zool. No. 71. t. 33.—Arct. Zool. 2. No. 127.—*Lewin's* Br. Birds, 1. t. 30.—*Lath.* Syn. 1. p. 160. 4.—*Mont.* Orn. Dict.—*Pult.* Cat. Dorset, p. 4.—*Bewick's* Br. Birds, 1. p. 58. —*Don.* Br. Birds, 4. t. 87.—*Selby*, pl. 43. fig. 1. p. 140.

Provincial.—Mountain Magpie. Mattiges. Wireangle. Murdering Pie. Skreek or Shrike.*

The weight of this species rather exceeds two ounces ; length ten inches, breadth fourteen ; the bill is black, strong, and much hooked at

the end; irides dusky; the mouth beset with strong bristles. From the base of the upper mandible to the eye a black stripe; the plumage of the whole upper part is a pale ash-colour, except the scapulars, which are white; the coverts of the wings black; quill-feathers black, with a white bar across their middle, and many of them tipped with white; the under parts, from chin to vent, white; the tail consists of twelve feathers of unequal length, which gives it a cuneiform shape; the two middle ones are black, the next slightly tipped with white, on the rest the white gradually increases obliquely to the outer feather, which is only black at the base; legs black.

The female differs chiefly in the under parts, which are of a dirty white, marked with numerous semicircular brown lines.

A variety is spoken of, which has the lesser wing coverts and scapulars somewhat of a rufous-brown. It is said to make a nest of heath and moss, lined with wool and gossamer, and to lay six eggs of a dull olive green, spotted with black at the larger end; *those in my possession are reddish white without any spot.*[1]

The Great Cinereous Shrike, or Butcher-Bird, is rather a scarce bird in England. It is said to breed in some of our mountainous situations, coming in May, and departing in September. However this may be in general, the only two which came under our inspection were both males; one was killed on the fifteenth, and the other on the twenty-second of November, in Wiltshire.

*By most of the British Ornithologists, says Selby, it is mentioned as arriving in the spring, and departing in autumn; which would imply that it breeds in this country, and is a regular periodical visitant. From this view of its habits I must be permitted to dissent; all the specimens that have come under my observation, have been killed in the months of November, December, and January, nor have I ever heard of an individual during the summer months. It is a solitary bird, being most frequently found single, though I have more than once met with a male and female together.

This bird is sometimes trained for catching small birds in Russia. It is said to kill rats and mice, and is valued in some countries for that property. When it has killed its prey, which consists of small birds, insects, and the smaller class of animals, it does not tear it like the hawk, but fixes it to a thorn and then tears it in pieces with its bill. Selby thus describes the singular manner in which this bird devours its prey. "It had just killed a hedge-sparrow, (*Accentor modularis*,) the skin of

[1] See Architecture of Birds, p. 3.

which, still attached to the thorn, is now in my possession; after killing the bird it hovered for a short time with the prey in its bill over the hedge, apparently occupied in selecting a thorn fit for the purpose; upon disturbing it, and advancing to the spot, I found the *accentor* firmly fixed by the tendon of the wing to the selected twig. When confined in a cage this bird still evinces the same propensity for fixing its food, and if a sharp-pointed thorn or stick is not left for that purpose, it will invariably fasten it to the wires before commencing its repast." Selby found in the stomach of one of these birds, the remains of a mouse; and Montagu found in another those of a shrew (*Sorex arenarius*, Linn.)

"I could never observe," says Mr. Knapp, "that this bird destroyed others smaller than itself, or even fed upon flesh. I have hung up dead young birds, and even parts of them, near their nests; but never found that they were touched by the shrike. Yet it appears that it must be a butcher too; and that the name '*lanius*,' bestowed on it by Gesner two hundred and fifty years ago, was not lightly given. My neighbour's gamekeeper kills it as a bird of prey; and tells me he has known it draw the weak young pheasants through the bars of the breeding coops; and others have assured me, that they have killed them when banqueting on the carcass of some little bird they had captured. All small birds have an antipathy to the shrike, betray anger, and utter the moan of danger, when it approaches their nests. I have often heard this signal of distress, and, cautiously approaching to learn the cause, have frequently found that this butcher-bird occasioned it. They will mob, attack, and drive it away, as they do the owl, as if fully acquainted with its plundering propensities. Linnæus attached to it the trivial epithet '*excubitor*,' a sentinel; a very apposite appellation, as this bird seldom conceals itself in a bush, but sits perched upon some upper spray, in an open situation, heedful of danger, or watching for its prey."

Audobon informs us that, "when pouncing on its prey, this bird seizes it with its bill first, (if *insectivorous*,) then secures it under its feet to eat it. When coming on a bird or mouse, which it has pursued for some distance, it settles its feet at the moment it strikes with its bill the cranium of the object pursued. I have seen a bird of this kind, in America, he adds, carried to a considerable distance by a Carolina dove, fastened to the back and head of the dove with beak and feet. Although the toes are slender, aud the claws comparatively weak, their press is powerful; and the bite it inflicts with the bill, can draw blood from a robust man's hand.

The flight is interrupted, being performed by jerks; and when perched, the tail is in constant motion. Its voice is capable of much variation,

and it possesses the power of imitating the notes of many of the smaller birds, which it is said to use for the purpose of decoying them to their destruction. Its favourite haunts are wooded and inclosed situations. It is extremely courageous, attacking birds much its superior in size; and will not allow a hawk, crow, or magpie to approach its haunts with impunity. Its legs and talons are slender and weak, and are never used in tearing up its prey; this is effected by the bill, which is thick, and furnished with very powerful muscles; and in this respect it strikingly differs from the rapacious order.*

BUTEO (Auctores.)—A genus thus characterised. Bill of mean length, somewhat weak; nostrils somewhat rounded; shanks short; shins plated with scales; the fourth quill the longest in the wing.—Vigors.

BUTTER BUMP.—A name for the Bittern.

BUTTERFLIP.—A name for the Avoset.

BUZZARD (*Buteo vulgaris*, Fleming.)

*Falco Buteo, *Linn.* Syst. 1. p. 127.—Faun. Suec. No. 60.—*Gmel.* Syst. 1. p. 265. sp. 15.—*Lath.* Ind. Orn. 1. p. 23.—*Raii*, Syn. p. 16. A. 1.—*Will.* p. 38. t. 6. 1. —*Müller*, No. 64.—*Briss.* 1. p. 406.—Buteo vulgaris, *Flem.* Br. Anim. p. 54.—Falco communis fuscus, *Gmel.* Syst. p. 270. sp. 86.—Falco variegatus, *Gmel.* Syst. 1. p. 267. sp. 78.—Ind. Orn. 1. p. 24. 48.—La Buse, *Temm.* Man. d'Orn. 1. p. 63.—*Buff.* Ois. 1. p. 206. t. 8.—*Ib.* pl. Enl. 419.—Mouse Falk, *Meyer*, Vög. Deut. Heft 14.—*Frisch*, Vög. Deut. t. 74.—Falco Albidus, *Gmel.* Syst. 1. p. 267. sp. 49. white variety.—Common Buzzard, Br. Zool. 1. No. 54. t. 25.—*Ib.* fol. t. A. 3.—Arct. Zool. p. 224. 1.—*Will.* (Ang.) p. 70.—*Lath.* Syn. 1. p. 48.—*Ib.* Sup. p. 14.—*Mont.* Orn. Dict.—*Ib.* Sup.—*Lewin's* Br. Birds, 1. t. 6. —*Walc.* Syn. 1. t. 6.—*Shaw's* Zool. 7. p. 109.—*Bewick's* Br. Birds, 1. 15.—*Pult.* Cat. Dorset, p. 3.—Falco Gallinarius, *Gmel.* Syst. p. 266.—*Selby*, pl. 6. p. 18. 8vo. p. 19.—Ash-coloured Buzzard, Arct. Zool. 2. No. 103.—*Lath.* 1. p. 55.—Falco cinereus, *Gmel.* Syst. 1. p. 267.—Greater Buzzard, *Lath.* Syn. 1. p. 49.—Spotted Buzzard. *Lath.* Syn. 1. p. 49.—Buzzardet, *Penn.* Arct. Zool. 2. No. 109.—Speckled Buzzard, *Lath.* Syn. 1. p. 97.

Provincial.—Puttock. Wood Buzzard.*

This species is subject to great variety in plumage; the males are generally of a lighter colour than the other sex, and the irides seem to correspond, having seen some almost grey upon the back and wings, whose irides were light grey. The one now before us is a female; weight thirty-eight ounces, length one foot nine inches, breadth four feet one inch. The bill is black, bluish towards the base; cere yellow; irides yellow hazel; the upper part of the head, cheeks, and upper part of the breast, light rust-colour; the middle of the feathers dark brown; the lower breast blotched with yellowish white; the throat and back of the head white, streaked with yellowish brown; the back of neck, scapulars, and coverts of the wings, tipped and edged on the two last with pale rust-colour, and dirty white; belly white, sparingly spotted with rust-colour; the thighs rusty brown, barred

with a deeper shade; the greater quills dusky black towards their ends, with a shade of ash-colour on the exterior webs; the interior webs of the primores white towards the base, the others barred with dark ash-colour; the tail is marked alternately with six or seven bars of dusky and pale rust-colour; that near the end is broad and dusky; the whole are tipped with white, and have a dash of cinereous; legs yellow.

The Buzzard is one of the most common species of falcon we have; it is a sluggish, inactive bird, slow in flight, and seldom remains long on wing, except in the breeding season, when it will soar to a prodigious height, spirally ascending. It makes a nest in the fork of a tree with large sticks, and lines it with wool, hair, and other substances; sometimes it takes possession of a deserted crow's nest. The eggs are two, and not unfrequently three in number, rather larger than those of a hen, of a dirty white, most commonly spotted with rust-colour, chiefly at the larger end.

This bird never pursues its prey on wing, but is contented with young hares, rabbits, and feathered game, of which it is a great destroyer; or if old ones are wounded, they become an easy prey. In default of such delicious food it will eat carrion, and even worms and beetles. It will also devour moles and mice, when pressed by hunger.

This species is very generally diffused throughout the wooded parts of Europe. In France its flesh is esteemed a delicacy, and much sought after during the winter. It is subject to great variety of plumage, which has led to its being multiplied into several species, as will be seen by reference to the synonimes. The plumage of the young is a light brown colour, variegated with white and yellow; the throat is white; the belly white, shaded with large longitudinal spots. Pennant says that they remain with the parent birds some time after quitting the nest.

Canaries and Nest.

CALIDRIS (Illiger.)—* Sanderling, a genus thus characterised. Bill of middle length, slender, straight, soft, flexible throughout; compressed from the base; at the point depressed, flattened, and broader than in the middle, the nasal groove being prolonged towards the point; nostrils at the sides slit lengthwise; legs slender, three toes directed forwards and almost entirely divided; wings of middle size, the first quill the longest.*

CALL OF BIRDS.—*Is in most instances effected by the lungs and larynx; but some species of woodpecker, in the breeding season, have a very extraordinary and peculiar call to each other, by strong reiterated strokes of their bill against the dead sonorous branch of a tree. These calls seem to be a species of song.*

CALLOW.—A name for the Sarcelle.

CAMBRIDGE GODWIT.—A name for the Dusky Godwit.

CANADA GOOSE.—An erroneous name for the Bernacle Goose.

CANARY BIRD (*Fringilla canaria*, Linnæus.)

* Fringilla canaria, *Lath.* Ind. Orn. 1. p. 454.—*Gmel.* Syst. 1. p. 913.—*Klein.* p. 88.—*Shaw's* Zool. 9. p. 474.—Serinus canarius, *Briss.* 3. p. 18. 4.—*Raii*, Syn. p. 91. 6.—*Will.* p. 192. t. 46.—Le serin des canaries, *Buff.* 4. p. 1.—Canarien Vögel, *Wirs.* Vög. t. 18. 29.—Canary Finch, *Lath.* Gen. Hist. 7. p. 88.—*Albin*, 1. pl. 46.—*Bewick's* Br. Birds, 1. p. 169.—*Bolton*, pl. 35.—*Syme*, p. 160.

This bird, though not a native, is so well naturalized, that I think it may be well to introduce some account of it here.

In length this beautiful species is about five inches and a half; the bill pale flesh-colour, passing into reddish white; eyes chestnut brown; the whole plumage of a rich, deep primrose colour, inclining to yellow; edge of the quills sometimes yellowish white; legs and feet, the same colour as the bill. The female is distinguished from the male by the plumage being of a paler colour; the yellow round the bill, eye, and on the breast and edge of the wing, being also of a paler yellow; she is likewise rather larger and less slender in form towards the tail.

The subject of our vignette and description, is the jonquil-cock and mealy hen of bird-fanciers. The fancy bird has a tuft of feathers of a fine gamboge yellow, inclining from the middle to each side; the throat, breast, and under part the same; the neck, back, and wings beautifully waved and mottled with different tints of pale purplish grey.

The original stock is said to have been imported from the Canary Isles, about the fourteenth century; a circumstance not mentioned by Belon, and discredited by Syme, for these reasons. The wild birds found in the Canary isles, says he, bear less resemblance, in song and plumage, to the domestic Canary, than to the siskin of Germany, the venturon of Italy, or the serin of France. The plumage of these is a mixture of yellow, green, and very little brown or grey; whilst the wild Canary has a plumage of dingy greenish grey. One of these birds, which I received from St. Michael's, sang very much like the linnet.

Buffon says in his elegant manner, "that if the nightingale is the chauntress of the woods, the Canary is the musician of the chamber; the first owes all to nature, the second something to art. With less strength of organ, less compass of voice, and less variety of note, the Canary has a better ear, greater facility of imitation, and a more retentive memory; and as the difference of genius, especially among the lower animals, depends in a great measure on the perfection of their senses, the Canary, whose organ of hearing is more susceptible of receiving and retaining foreign impressions, becomes more social, tame, and familiar; is capable of gratitude and even of attachment; its caresses

are endearing, its little humours innocent, and its anger neither hurts nor offends. Its education is easy; we rear it with pleasure, because we are able to instruct it. It leaves the melody of its own natural note, to listen to the melody of our voices and instruments. It applauds, it accompanies us, and repays the pleasure it receives with interest, while the nightingale, more proud of its talent, seems desirous of preserving it in all its purity, at least it appears to attach very little value to ours, and it is with great difficulty it can be taught any of our airs. The Canary can speak and whistle; the nightingale despises our words, as well as our airs, and never fails to return to its own wild wood notes. Its pipe is a masterpiece of nature, which human art can neither alter nor improve; while that of the Canary is a model of more pliant materials, which we can mould at pleasure; and therefore it contributes in a much greater degree to the comforts of society. It sings at all seasons, cheers us in the dullest weather, and adds to our happiness, by amusing the young and delighting the recluse, charming the tediousness of the cloister and gladdening the soul of the innocent and captive."

There are said to be upwards of thirty varieties of the breeds of Canaries, which can be easily distinguished; and the number is increasing every year. In London, we have societies for promoting the breeds, and a premium is awarded to the competitor who comes nearest to the model of perfection given out by the society the season prior to the competition.

There are two distinct species of Canaries, the plain and variegated, or, as they are technically called, the gay spangles, or meally; and jonks, or jonquils, both of which are represented in our cut. These two varieties are more esteemed by amateurs than any of the numerous varieties which have sprung from them; and although birds of different feathers have their admirers, some preferring beauty of plumage, others excellence of song, certainly that bird is most desirable where both are combined. The first property of these birds consists in the cap, which ought to be of fine orange colour, pervading every part of the body except the tail and wings, and possessing the utmost regularity, without any black feathers, as, by the smallest speck, it loses the property of a show-bird, and is considered a broken-capped bird. The second property consists in the feathers of the wing and tail being of a deep black up to the quill, as a single white feather in the wing or tail causes it to be termed a foul bird; the requisite number of these feathers in each wing is eighteen, and in the tail twelve. It is, however, frequently observed that the best coloured birds are foul in one or two feathers, which reduces their value, although they may still be matched to breed with.

The dispositions of Canaries are as various as their colours; some are gay, sportive, and delight in mirth and revelry, while others are sullen, intractable, and lazy, Some cocks are most assiduous in assisting the hen to build her nest, and even to hatch the eggs, while others will destroy the eggs, or tear the young from the nest, and kill them in their rage: the grey ones will never build, and the person who superintends these must make a nest for them.

Mr. Syme informs us that he possessed a jonquil cock that used to nibble at its cage till he opened it, and then escaping from its prison-house, it would fly to the mantel-piece, where it would place itself on a china ornament, flutter as if in the act of washing, and continue to do so till water was brought. The same bird was so docile as to come, when called, to the hand, and hide trifling articles in the corner of its cage, stopping and looking round as if for encouragement and applause. But one of his favourite amusements was to perch upon the branches of a tall myrtle in a window where the cage frequently hung; and he even became so bold, as to dart upon the ephemeral insects that rose from a stream close by, and which seemed to afford him a delicious banquet. Poor Dickie was, however, doomed to suffer for this indulgence, and one morning was found dead in his cage, having been killed by a young pointer, a privileged vagrant like himself.

At a public exhibition of birds we are informed that one of these docile creatures acted the part of a deserter, and ran away, while two others pursued and caught him. A lighted match being given to one of these, he fired a small cannon, and the little deserter fell on his side, as if dead; another bird then appeared with a small wheel-barrow, for the purpose of carrying off the dead, but at its approach the little deserter started to his feet.

Syme seems to think that these birds might be naturalized to our climate, having seen a pair flying about at liberty, probably an experiment to try if they would breed: and he thinks they had built a nest, from their being repeatedly observed flying in and out at one spot on the precipitous bank at St. Bernard's well, near Edinburgh.

A small breeding cage is all that is required for rearing these birds; but where a room can be allotted to the purpose, it ought to have shrubs for them to roost and build, with plenty of water to drink and bathe in, that being indispensable for all birds. The light should be admitted into the room from the east, for the benefit of the morning sun, and the windows should have wire cloth, that they may enjoy the fresh air. The floor of the apartment ought to be strewed with sand or white gravel, and on that should be thrown groundsel, chickweed, or scalded rapeseed; but when breeding, they should have nothing except

hard chopped eggs, dry bread, cake without salt, and, once in two or three days, a few poppy-seeds. Some bird-fanciers give their breeding-birds plantain and lettuce-seed; but this should be done sparingly, and only for two days, lest it should weaken them.

About the 15th of April they ought to be furnished with flax, soft hay, wool, hair, moss, and other dry materials, for building the nest, which usually occupies three days: the time of incubation is thirteen days; but when the hen has sat eight or nine days, it is necessary to examine the eggs, holding them carefully by the ends, against the sun or a lighted candle, and to throw away the clear ones. Some bird-fanciers substitute an ivory egg until the last is laid, when the real ones are replaced, that they may be hatched at the same time.

When the young are to be reared by the stick, they must be taken from the mother on the eighth day, taking nest and all. Prior to this, the food should consist of a paste composed of boiled rapeseed, the yolk of an egg, and crumbs of cake unsalted, mixed with a little water: this must be given every two hours. This paste ought not to be too wet, and must be renewed daily, until the nestlings can feed themselves. The hen has generally three broods in the year, but will hatch five times in the season, each time laying six eggs.

The process of moulting, which takes place five or six weeks after they are hatched, is frequently fatal to them. The best remedy yet known is to put a small piece of iron into the water they drink, keeping them warm during the six weeks or two months which generally elapse before they regain their strength. This malady, to which they are all subject, is often fatal to the hen after the sixth or seventh year; and even the cock, though from superior strength he may recover, and continue occasionally to sing, and survive his mate four or five years, appears dull and melancholy from this period, till he gradually droops, and falls a victim to this evil.

If it is proposed to rear gay birds, the cock and hen should be of the same deep colour; if mottled birds are required, both parents should be mottled. When a gay bird and a fancy bird are matched, they are termed mule-birds, because they are irregularly mottled in their plumage, and therefore of no value, although they be equally good singers. The spangled or French Canary cock, with a mealy hen, often produces beautiful varieties.

The most common cause of disease in birds proceeds from a super-abundance of food, which brings on repletion. In this case the intestines descend to the extremities of the body, and appear through the skin, while the feathers on the part affected fall off, and the poor bird, after a few days, pines and dies. If the disease is not too far gone, putting

them in separate cages, and confining them to the cooling diet of water and lettuce-seed, may save the lives of many: they are also subject to epilepsy, asthma, ulcers in the throat, and to extinction of the voice. The cure for the first is doubtful; it is said that if a drop of blood fall from the bill, the bird will recover life and sense; but if touched prior to falling of itself, it will occasion death. If they recover from the first attack, they frequently live for many years without any alteration in their note. Another cure is to inflict a slight wound in the foot. Asthma is cured by plantain, and hard biscuit soaked in white wine; while ulcers, like repletion, must be cured by cooling food. For extinction of voice, the cure ought to be hard yolk of eggs, chopped up with crumbs of bread, and for drink a little liquorice-root, or a blade of saffron in water. In addition to these evils, the Canary is infected by a small insect, if they are kept dirty. To avoid this, they should have plenty of water to bathe in, a new cage, covered with new cloth, and their seeds well sifted and washed. These attentions, if troublesome, are nevertheless necessary to possess a thriving bird. When wild, it has already been remarked, that all birds require water, and to a Canary this is so necessary, that if a saucer or cup of snow be put into the cage, they will flutter against it with the utmost delight, even during the most severe winters. They are bred in immense numbers, both for amusement and commerce, in France, Tyrol, Germany, and in this country: those from Germany are in the least esteem, from their living only one or two years in this country, although the cock of this variety is an approved songster.

"We might almost conclude," says Bechstein, "that the venturon, (*Fringilla citrinella,*) the serin, (*F. serinus,*) or the siskin, (*Carduelis spinus,*) are the wild originals of the cage Canary. I have seen a bird produced between a siskin and a serin, which perfectly resembled the variety called the green Canary. I have also seen a mule from a grey female Canary, whose true parentage could not be distinguished." I am, on the contrary, convinced that the siskin, so far from being of the same species, belongs to a different genus.

The following accurate description of the Canary, taken by the late Dr. Heineken from the living indigenous birds at Madeira, is too interesting to be overlooked.

"*Fringilla canaria,* (Heineken.) *F. butyracea,* (Linn.) *Adult Male.* Irides dark brown. Upper mandible fuscous, sides and tip, darker; lower, livid flesh-colour. Legs, brownish flesh-colour. Front, brows, line below the eyes, chin, throat, (extending backwards and

[1] Ornithologisches Tasschenbuch, p. 304.

forming an indistinct imperfect collar with a slight shade on the *nucha,)* breast, rump, and lesser wing coverts, greenish yellow: scapulars and larger coverts, deeply shaded with the same: *nucha* and back, (a tinge only on the latter) similarly, but very lightly shaded. Abdomen, as far as the legs, golden yellow: vent, under tail coverts, thighs, and sides, dirty white; the latter with large longitudinal brown spots. Vertex, occiput, cheeks, back, larger wing coverts, scapulars, and upper tail coverts, brown ash, with a longitudinal brown spot down each feather; indistinct, small, and light coloured on the head, &c.; large, dark, and defined on the other parts. Remiges, tertiaries, and tail feathers, brown black, with pale brown ash edges: the external margin of the first four or five *remiges*, white; of the rest, pale greenish yellow. Length, five and a quarter, breadth nine inches. Bill, about four lines. Weight, about half an ounce. Tail (which is forked) two inches, four lines. Tarsus, about eight lines.

"*Adult female.*—General plumage more dingy and indistinct; rump only greenish yellow, with a tinge of the same round the eyes, and on the throat, breast, and wing coverts.

"*Male variety.*—General plumage more grey; colouring more inclining to green: somewhat larger; song the same. Its produce with a tame bird, stronger.

"*Young male.*—Like the female, but with the legs brown black, and the lower mandible darker.

"*Young female.*—No yellowish or greenish colouring.

"It builds in thick bushy high shrubs and trees, with roots, moss, feathers, hair, &c.; pairs in February; lays from four to six pale blue eggs, and hatches five times (not unfrequently six) in the season. It is very familiar, haunting and breeding in gardens about the city. It is a delightful songster, with, beyond doubt, much of the nightingale's and sky-lark's, but none of the wood-lark's song, although three or four sky-larks in confinement in Funchal, are the only examples of any of these birds in the island."

The *Fringilla canaria* of Linnæus, whose habitation is said by Gmelin and Turton to be India, is not this species, but an apparently spurious one.*

CAPERCALZIE (*Urogallus vulgaris*, Fleming.)

* Tetrao urogallus, *Linn.* Syst. 1. p. 273. 1.—*Gmel.* Syst. 1. p. 746.—*Raii*, Syn. p. 53. A. 1.—*Will.* p. 123. t. 30.—Ind. Orn. 2. p. 634. 1.—Urogallus major, *Briss.* 1. p. 182.—*Ib.* 8vo. 1. p. 51.—Tetras auerhan, *Temm.* 2. p. 457.—Coq. de Bruyere, ou Tetras, *Buff.* 2. p. 191. t. 5.—Capricalea, *Sib.* Scot. 16. t. 14. 18.—Cock of the Wood or Mountain, *Raii*, Syn. p. 53. A. 1.—*Will.* (Angl.) p. 172. t. 30.—*Albin*, 2. t. 29. 30.—Wood, or Great Grous, Br. Zool. 1. No. 92. t. 40. 41. *Ib.* fol. M. M.—Arct. Zool. 2. p. 312. A.—*Ib.* Supp. p. 62.—*Lath.* Syn. 4. p. 729. 1.—*Lewin's* Br. Birds, 4. t. 132.—*Walc.* Syn. 2. t. 180.—*Don.* Br. Birds, 4. t. 89.—*Flem.* Br. Anim. p. 46.*

This noble species is not much inferior in size to a turkey; weight sometimes twelve or thirteen pounds, but more frequently seven or eight; length, two feet eight or nine inches. The bill is above two inches long, very strong, the upper mandible much convex and hooked, the point hanging over the under mandible very considerably when closed, as in birds of prey, and projecting over the sides, not meeting at the edges, as in most birds, by which means it can cut its food like a pair of scissors; the colour yellowish; irides hazel. The nostrils are covered with dusky feathers; over the eye is a bare red skin, and under the eye a spot of white feathers. The head is dusky, a little dashed with ash-colour; the feathers on the chin and throat are dusky black, and long: the neck dark ash-coloured, finely speckled with dusky; the breast is of a fine dark glossy green; the rest of the under parts black, with spots of white, most about the thighs and vent; the wing coverts and scapulars chesnut-brown, finely speckled with dusky, at the junction of the wing to the body is a little white; greater quills dusky. Secondaries like the coverts, slightly tipped with white; the lower part of the back, rump, and upper tail coverts, ash-colour, marked with innumerable small undulated lines and specks of black; the two outer rows of feathers covering the tail are greatly longer than those in the middle, and gradually lengthening, the under ones reaching nearly to the end of the tail; these are seven or eight in number, lying immediately over each other: their ends are white, making as many white bars on each side; the tail is considerably rounded, consisting of eighteen black feathers, marked with a few spots of white on the sides; the legs are covered with brown hair-like feathers; the edges of the toes strongly pectinated; claws dusky and blunt.

The female differs exceedingly, both in size and colour; weight about four pounds. Bill dusky; head, neck, and back, are barred with tawny red and black; the throat tawny red; breast pale tawny, with some white spots on the upper part; the belly barred with pale tawny and black, the feathers tipped with white; scapulars tipped the same; quill-feathers dusky, mottled on the exterior webs with light brown; the tail is of a dark rust-colour, barred with black, and tipped with white.

This sex is described, by some authors, to have but sixteen feathers in the tail, whereas the male has eighteen. This variation must have been occasioned by the loss of some not noticed, for we have never seen an instance where the sexes differ in this particular; *and from further examination, we are enabled to assert that both sexes have the latter number.* It is a strong character, that seems to divide birds of apparent similitude, as in the cormorant and shag, and many of the duck tribe, the females of which so frequently resemble each other.

The male of this species is polygamous, and lives separate from the females, except in the breeding season. Their manner and habits are very like those of the black grous, except that this seems to be confined wholly to forests of pine, on the tender shoots of which it feeds. It was formerly met with in Scotland and Ireland, but is now extinct.

The female is said to lay from eight to sixteen eggs, of a white colour, spotted with yellow, larger than those of our domestic fowl. Dr. Latham says, he is well informed the nest of one found in Scotland was placed on a Scotch pine; if so, it differs from all the genus, who are known to lay their eggs on the bare ground.

It is not uncommon in the pine forests of Norway, from whence we have received it. Is also found plentiful in Russia and Siberia, in Italy, and several parts of the Alps.* It formerly frequented the fir woods of Ireland and Scotland, and was last seen in 1760, in the woods of Strathglass. It continued in Strathspey till 1745. Recent attempts have been made to re-introduce the species from Norway, without success.*

CAPRIMULGIDÆ (Vigors.)—*Birds belonging to the Night-jar kind.*

CAPRIMULGUS (Linnæus.)—*An absurd name for the Night-jar genus (*Nyctichelidon*, Rennie.)*

CAPRISTRUM.—*The technical term for the face of a bird.*

CARBO (Meyer.)—*Cormorant, a genus thus characterised. Bill of mean length, or long, straight, compressed, ridge rounded; the upper mandible much curved towards the point and crooked; under mandible compressed, the base entangled in a small membrane, which is extended upon the throat, face, and throat naked. Nostrils relaxed at the base, narrow and not obvious. Legs strong, short, much drawn up towards the belly; three toes before, the third toe articulated interiorly, and all united by a single membrane. Claws, that of the middle toe, toothed like a saw. Wings of middle size, the first quill a little shorter than the second, which is the longest in the wing. This genus has been very properly separated from the Pelicans.*

CARGOOSE.—A name for the Gaunt.

CARINATE—*In form of the keel (*carina*) of a ship, an epithet applied to the bill, &c.*

CARRION CROW.—A name for the Crow.

CARBUNCLE.—*A fleshy protuberance on the bill of some birds.*

CAR SWALLOW.—A name for the Black Tern.

CASTANEOUS DUCK.—A variety of the White Eye.

CERE or WAX.—*The membrane which covers the base of the bill in Falcons (*Falconidæ*, Leach.*)

CERTHIA (Illiger.)—*Creeper, a genus thus characterised. Bill long, or of mean length, more or less curved, triangular, compressed, slender, and sharp pointed. Tongue short. Nostrils at the base pierced horizontally, naked, and partly covered with an arched membrane. Legs with the feet having three toes before, and one behind, which last is strong and of some length; the outer toe united at its base to the middle one. Tail wedge-shaped, composed of twelve stiff, sharp pointed, and deflected feathers. Wings having the first quill short, the second and third shorter than the fourth, which is the longest in the wing. It contains only one British species.

The very miscellaneous genus *Certhia* of Gmelin and Latham, besides the above, is now distributed among *Cæreba*, *Nectarinia*, *Climacteris*, &c.*

CERTHIADÆ (Vigors.)—*Birds of the Creeper kind.*

CHACKER, CHACK, CHACKBIRD, and CHUCK.—Names for the Wheatear.

CHAFFINCH (**Fringilla spiza*, Rennie.)

Fringilla cœlebs, *Linn.* Syst. 1. p. 318.—*Gmel.* Syst. 1. p. 901. sp. 5.—*Lath.* Ind. Orn. 1. p. 437. 12.—*Raii*, Syn. p. 88. 16. A.—*Will.* p. 186. t. 45. f. 4.—*Briss.* 3. p. 184. 36.—Le Pinson, *Buff.* Ois. 4. p. 109. t. 4.—*Ib.* pl. Enl. 54. f. 1. the male.—Gros-Bec Pinson, *Temm.* Man. d'Orn. 1. p. 357.—Gemeine Fink, *Bechst.* Naturg. Deut. 3. p. 75.—*Meyer*, Tasschenb. Deut. 1. p. 150.—*Ib.* Vög. Deut. 1. f. 1. and 2. male and female in spring plumage.—*Frisch*, t. 1. f. 1.—Scheld Fink, *Sepp*, Nederl. Vög. p. 141.—Chaffinch, Br. Zool. 1. No. 125.—Arct. Zool. 2. p. 381. F.—*Will.* (Angl.) p. 253. 45.—*Albin*, 1. t. 63.—*Lath.* Syn. 3. p. 259. 10.—*Ib.* Supp. p. 165.—*Lewin's* Br. Birds, 2. t. 79.—*Walc.* Syn. t. 217.—*Pult.* Cat. Dorset, p. 12.—*Mont.* Orn. Dict. 1.—*Bewick's* Br. Birds, p. 160.—*Low's* Faun. Orcad. p. 12.—*Shaw's* Zool. 9. p. 442. 65. fig. 1.—*Selby*, pl. 54. fig. 6. 7. p. 269.

Provincial.—Spink. Beechfinch. Pink. Twink. Skelly. Shell-Apple. Horsefinch. Scobby. Shilfa.

As the Linnæan name of Bachelor (*cœlebs*) appears to me very inappropriate, when applied to a bird so remarkable for the neatness of its nest and for domestic attachment, I have restored the name of *spiza*, given it by Aristotle in his Hist. Anim. 8. p. 1.*

This bird is rather less than the sparrow. The bill is bluish; irides hazel; the forehead black; crown of the head, back part, and sides of the neck, bluish ash-colour; the cheeks, under side of the neck, and breast, dull pink; back chestnut-brown; rump greenish; belly white, tinged with pink; the bastard wing and coverts of the primary quills are black; those of the secondary tipped with white; the smaller coverts black and greyish, on which is a spot of white; the quill-feathers dusky, slightly edged with greenish yellow on the outer webs, marked with white on both webs at the base; tail dusky; the exterior feather is obliquely marked with white, taking in the whole of the outer web, the next is tipped with white; legs dusky.

The female is of a dull green above; the breast and belly of a brown or dirty white; the wings have the same markings as the male, but less brilliant.

This bird makes a most elegant nest of green moss, curiously studded with lichen interwoven with wool, and lined with feathers and hair. It builds against the side of a tree, particularly in ivy, or in some forked branch of a bush; but particularly in apple-trees overgrown with moss and lichen, and, like many other birds, adapts the materials of its nest to the surrounding colour; an instinct of no small importance.

*I am by no means inclined to agree with Montagu, in the doctrine that birds designedly adapt the materials of their nests to the colour of the objects around them. In the case of the pretty nest of the Chaffinch, the materials, on the contrary, appear to me to vary according to the opportunities the birds have of procuring them; among twelve specimens in my cabinet, no two are exactly alike, and most of them differ very considerably. Some are formed with the finer sorts of green moss from trees, (*Hypnum tenellum*, *Lestrea sericea*, *L. polyantha*, &c.,) but more commonly small grey or yellow lichens (*Parmelia stellaris*, *P. perlata*, *Lecanora virella*, &c.) are at least stuck over the outside; and, in one instance, which seems unique, the thin bark scales of the American plane-tree (*Platanus occidentalis.*) Sometimes I have found the nest-webs of spiders bundled up into little tufts, and stuck in similarly to lichens; and in the vicinity of the cotton factories at Catrine, in Ayrshire, I have seen many Chaffinches' nests stuck over, in the same manner, with small tufts of cotton wool.

But the indispensable substance in all these nests, how different soever they may be in the outward materials, is fine wool, with which the moss, lichen, spiders' nests, tufts of cotton, or bark scales, are carefully and neatly felted into a texture of wonderful uniformity. The nature of the workmanship of these little birds will be seen to extraordinary advantage, when compared with the moss baskets for holding eggs or fruit, which we meet with in some of the shops in the metropolis. The moss (usually *Hypna*) upon the fruit and egg baskets, is stuck on in a very rough way, bits of the branches projecting all over, as if the maker possessed not the skill to render it smooth; but the bird's nest, when newly finished, and before it has been battered by storms, or exposed to the wear and tear incident to the rearing of a brood of nestlings, is almost as smooth on the outside (more so internally), as if it had been felted together by a hat maker. The wool of course is the material by which this is effected; no other substance which the bird could select, being capable of matting so nicely

together both its own fibres, and the coarser materials which are intermixed with it, and stuck over the whole. In many of these nests, though not in all, (following the principle of the hat-maker in binding the rim of a hat,) greater strength is given to the fabric by binding the whole round with dry grass stems, occasionally with slender roots, which are partly covered by the staple felt work of moss and wool. A circumstance also never neglected, is to bind the nest firmly into the forks of the bush, where it is placed by twining bands of moss, felted with wool, round all the contiguous branches, both below and at the sides. The parts of the nest which touch the larger branches also, are always considerably less massive than the open unsupported parts, a thin wall, moulded to the rounding of the branch, being all that is thought necessary for security, warmth, and softness; which are further procured by a neat lining of hair smoothly woven, and a few feathers.

I may remark, however, that the Chaffinch does not always line with hair-cloth of its own weaving, for it often uses down, feathers, or cotton, with a few long hairs to bind these materials together; but amongst the numerous specimens of these nests now on my table, more than two-thirds are lined chiefly with hair of various colours, as it can be procured, and from various animals, though that of the cow and the horse seems to be preferred. I have one Chaffinch's nest which appears to be more beautiful than usual, from being lined with a smooth thick texture of cow's hair, all of an orange-brown colour, which forms a fine contrast to the white wool intermixed with grey lichens and green moss around the brim. In some specimens, again, the hairs are nearly all white, and in others all black, though seldom in a mass, and almost wholly worked in hair by hair. If a tuft of hair, therefore, is procured from a tree or a gate-post, where cattle have been rubbing themselves, the Chaffinch seems to pull it minutely to pieces before interweaving it, while the wagtail and some other birds merely flatten it to make it lie smooth. The trees and bushes most commonly selected by the Chaffinch for her nest, are the elm, oak, crab-tree, hawthorn, silver fir, elder, &c. Mr. Jennings justly remarks that "it prefers gardens and apple-trees," and "will build against a wall or a grape vine," though he is certainly wrong in adding, "rarely or never in hedges."[1] On the contrary, I am certain it very often builds in hedges, particularly in those composed of hawthorn and crab-tree, and I have found one in a closely clipped privet hedge, and another in a thick hedge of holly, though I consider the latter two instances rather unusual. Sepp's

[1] Ornithologia, p. 19, Note.

figure of this nest is irregular and bad, and the eggs worse.* These are four in number, larger than those of the goldfinch, of a dirty white, tinged with purple, marked with streaks and spots of dark purple. Its notes are few, and scarcely deserve the name of song. Both sexes have a monotonous call, which seems to express the word *twink*, whence it is provincially called by that name.

In summer these birds live chiefly upon insects, with which they feed their young; in winter they become gregarious, and feed on seeds and grain. They remain with us during the whole year, and flock with other hard-billed birds in the colder months; but the sexes do not separate, as they are known to do in Holland, and other countries. Mr. White makes mention of flocks of females being seen in Hampshire; these probably came from some northern county. *"All the British ornithologists," says Selby, "describe this species as permanently resident with us, and nowhere subject to that separation of the sexes and the consequent equinoctial movement of the females, which is known to take place in Sweden and other northern countries. The fact, however, is otherwise, as the experience of a series of years has evinced that these birds, in a general point of view, obey the same natural law in the north of England. In Northumberland and Scotland, this separation takes place about the month of November, and from that period till the return of spring, few females are to be seen, and those few always in distinct societies. The males remain, and are met with, during the winter, in immense flocks, feeding with other granivorous birds in the stubble-land, as long as the weather continues mild, and the ground free from snow; and resorting, upon the approach of storm, to farm-yards, and other places of refuge and supply. This separation of sexes, I am inclined to believe, takes place in many other species, with respect to their migratory movements, as in the instance of the snow-bunting. This appears also to be the case with the woodcock, having observed that the first flight of these birds consist chiefly of females, whilst, on the contrary, the later flights are principally composed of males."*

CHALDRICK or CHALDER.—Names for the Oyster Catcher.

CHANK.—A name for the Chough.

CHARADRIADÆ (Leach.)—*Birds of the Plover kind.*

CHARADRIUS (Linnæus.)—*Plover, a genus thus characterised. Bill shorter than the head, slender, straight, compressed, nasal furrow prolonged more than two-thirds; mandibles bulged towards the tip. Nostrils at the base, jagged, slit lengthwise in the middle of a large membrane, which covers the fosse. Legs long or of middle length,

slender, three toes directed forwards; the outer toe joined to the middle one by a short membrane; the inner toe separate. Tail slightly rounded or square. Wings of middle size, the first quill a little shorter than the second, which is the longest in the wing.*

CHARLIE MIFTIE.—A name for the Wheatear.

CHEPSTER.—A name for the Starling.

CHERRY-FINCH.—A name for the Haw-finch.

CHERRY-SUCKER and CHERRY-SNIPE.—Names for the Beam-bird.

CHICKELL.—A name for the Wheatear.

CHICK-STONE (*Saxicola rubicola*, Bechstein.)

*Saxicola rubicola, *Bechst.* Naturg. Deut. 3. p. 694.—Sylvia rubicola, *Lath.* Ind. Orn. 2. p. 523. 49.—Motacilla rubicola, *Linn.* Syst. 1. p. 332. 17.—*Gmel.* Syst. 2. p. 969.—Rubetra, *Briss.* 3. p. 428. 25. t. 23. f. 1. male.—Œnanthe nostra tertia, *Raii*, Syn. p. 76. A. 4.—*Will.* p. 169. t. 41.—Motacilla Tschecautschia, *Gmel.* Syst. 1. p. 997. sp. 175.—Le Traquet, *Buff.* Ois. 5. p. 215. t. 13.—*Ib.* pl. Enl. 678. f. 1.—Traquet Patre, *Temm.* Man. d'Orn. 1. p. 246.—*Le Vaill.* Ois. d'Afriq. 4. pl. 180. f. 1. & 2. old male.—Swartzkehliger Steinschmatzer, *Bechst.* Naturg. Deut. 3. p. 694. t. 23. old male.—Stone-Chat. Br. Zool. 1. No. 159.—*Will.* (Ang.) p. 235. t. 41.—*Lath.* Syn. 4. p. 448. 46.—*Mont.* Orn. Dict.—*Lewin's* Br. Birds, 3. t. 108.—*Albin*, 1. t. 52.—*Walc.* Syn. 2. t. 239.—*Pult.* Cat. Dorset. p. 9.—*Haye's* Br. Birds, t. 39.—*Bewick's* Br. Birds. 1. p. t. 233. male.—*Sweet's* Br. Warbler, p. 16.—*Flem.* p. 68.—*Selby*, pl. 43. figs. 3. 4. p. 203.

Provincial.—Stone-Chatter. Stone-Smick. Blacky-Top. Moor Titling.*

This species weighs five drams; length five and a half inches. The bill is black, broad at the base, and beset with bristles; irides dusky. The head and throat black; on each side the neck is a large white spot; the feathers on the back are black, edged with tawny; the lower part of the rump and tail coverts white, in some spotted; the breast is of a deep rust-colour; belly lighter; quill-feathers dusky; the lesser ones edged on their exterior webs with bright rust-colour; the coverts of the wings black, slightly tipped and edged with rusty brown, except some of the larger series next the body, which are of a pure white, making a large conspicuous spot on the wing; the tail is black, slightly tipped and edged with pale brown; legs black.

Male birds of the first year have the black feathers on the head mixed with rufous.

The female has no black on the head, but is of the same colour as the back, which is lighter than that part in the male; on the throat is an obscure dusky spot; the white on the rump is also wanting, but it possesses that mark on the wings.

The stonechat has much the habits of the whinchat, frequenting commons and furzy places, where they sit upon the uppermost sprays,

and dart at every fly that passes, frequently returning to the same place again, like the flycatcher, to which they seem as nearly allied as the coldfinch or pied flycatcher, insects and worms being their only food. This bird seems to be more general than the other species; it remains with us the whole year, and is one of the first birds that makes its nest in the spring. We have frequently found it with eggs before the middle of April.

The nest is placed on, or very near the ground, at the bottom of a furze, or some other bush; is composed of moss and bents, lined with hair, and sometimes mixed with small feathers. The eggs are five in number, of a blue colour, with small rufous spots at the larger end, which in some are faint, in which case they are scarcely to be known from those of the whinchat; their weight is about thirty grains. It is probable this species quits its usual place of abode, the dreary moors and furzy commons, in very severe weather, as we have observed in some of the most temperate parts of England, Devonshire, and Cornwall; for, on the fall of a considerable quantity of snow, not one was to be seen where many were the day before; nor did they return for some time after the snow was melted. It is hardly possible they should quit the kingdom in the middle of winter, and yet none were to be seen anywhere about that country.

It is likely a partial migration takes place in autumn, as we do not see so many in winter as in summer. *"I have not," says Selby, "lost sight of this suggestion, and am inclined to think that the greater part of the young of the year do migrate in the course of the winter, having repeatedly noticed (in places where the species is abundant) the disappearance of the young as winter approached, whilst the parent birds remained attached to their favourite spot. In very severe storms of snow, even those that winter here are sometimes compelled to quit their usual situations, and take refuge in more inclosed grounds, or in plantations. In the early part of the spring it sings very prettily, springing into the air, and suspending itself some time on wing. But as it breeds so early its song is of short duration, as few birds sing after their young are hatched."*

When the young leave the nest, the old birds are extremely clamorous and bold, and are as artful in enticing any one from their young, as they are in concealing their nest.

CHIFF-CHAFF (*Sylvia hippolais*, LATHAM.)

*Sylvia hippolais, *Lath.* Ind. Orn. 2. p. 507. sp. 4.—Motacilla hippolais, *Linn.* Syst. 1. p. 330. 7.—*Gmel.* Syst. 2. p. 954.—Ficedula septima, Aldrov. (Pettychaps), *Raii*, Syn. p. 79. A. 7.—*Will.* p. 158.—La Fauvette des Roseaux, *Buff.* pl. Enl. 581. f. 2. but the description of this figure refers to the true Fauvette

des Roseaux (Sylvia arundinacea.)—Bec-fin à poitrine jaune, *Temm.* Man. d'Orn. 1. p. 222.—Le Grand Pouillot, *Cuv.* Reg. Anim. 1. p. 369.—Gelebaückiger Sanger, *Meyer*, Tasschenb. Deut. 1. p. 246.—*Bechst.* Tasschenb. Deut. 3. p. 173. sp. 10.—Lesser Pettychaps, Br. Zool. 1. No. 149.—*Lath.* Syn. 4. p. 413. 3.—*Ib.* Supp. 2. p. 236.—*Lewin's* Br. Birds, 3. t. 101.—*Pult.* Cat. Dorset. p. 9.—*Mont.* Orn. Dict.—*Ib.* Supp.—Least Willow-Wren, *Bewick's* Br. Birds, 1. p. 232.—*Sweet's* Br. Warblers, 7.—Regulus hippolais, *Flem.* Br. Anim. p. 72.—*Selby*, pl. 47. fig. 1. p. 186.

Provincial.—Chip Chop. Choice and Cheap.*

Weighs about two or nearly three drams; the length varies from four inches and a half to five inches.

This species is nearly the same size as the hay bird. In its plumage it so much resembles that bird, that we shall only make mention here of some essential marks of distinction, and refer our readers to the hay bird.

Its general colour is not so much tinged with yellow, and the legs are dusky, which in the other are brown.

The plumage of the sexes are alike.

These two birds have been, and are frequently confounded, and with them the wood wren of this work; but this last is at once distinguished by the under tail coverts being a pure white, and the plumage of a more lively green on the upper parts than either of the others. The nest, eggs, and notes, will be found also different by consulting and comparing the history of each. This is the first of all the migrative warblers (*Sylviadæ*) in its annual visit, and is, perhaps, the only one that has occasionally been observed with us during winter, and that only in the milder parts of England. It is generally heard on or before the first of April repeating its song, if that may be so called, which consists only of four notes, which seem to express the words *chip*, *chop*, *cherry*, *churry*, four or five times successively. It is a busy, restless bird, always active among the trees and bushes in search of insects. From its early cry in our neighbourhood, we long suspected it would be found that this hardy little bird did not wholly quit us, and in this opinion we were confirmed by seeing one in the garden about Christmas, 1806. In the following January we observed two of these little creatures busied in catching the small insects which a bright day had roused in great abundance about some fir trees, by springing upon them from the ends of the branches, one of which we succeeded in shooting. Another which we killed in 1808 on the same spot while feeding upon a small species of *culex*, weighed one dram thirty-three grains; this will easily account for the very early cry of this bird in the spring, as it is highly probable that they remain with us the whole year, but are wholly silent in the winter. The earliest we ever heard was on the 14th of March, 1804, when vegetation was unusually early.

The nest of this species is oval, with a small hole near the top, composed externally of dry leaves, and then coarse dry grass, and lined with feathers ; and is generally placed on or near the ground, frequently on a ditch bank, in a tuft of grass or low bush. The eggs are six in number, white, speckled with purplish red at the larger end only, with here and there a single speck on the sides.

It seems to be the hardiest and more generally diffused of all our summer visitants ; and is found in all parts of the kingdom where wood or hedges afford it shelter and food. Its note is heard long after the hay bird is silent. Dr. Latham says this is called in Dorsetshire the hay bird ; but as we are inclined to believe the three species before mentioned have been confounded, it is more probable that our hay bird should obtain that name, as its nest is composed of that material.

Mr. Sweet tells us "it is readily taken in a trap baited with small caterpillars. They soon get familiar in confinement : when first caught they should, if possible, be put with other birds, and they will readily take to feed on bruised hemp-seed and bread, and on bread and milk, which must at first be stuck full of small insects, or a quantity of aphides may be shook off a branch upon it : when they have once tasted it they will be very fond of it. One that I caught took to eat it directly, and became so familiar, that in three or four days it would take a fly out of the hand ; it also learnt to drink milk out of a tea-spoon, of which it was so fond, that it would fly after it all round the room, and perch on the hand that held it, without showing the least symptoms of fear : it would also fly up to the ceiling, and bring down a fly in its mouth every time. At last it got so very tame, that it would sit on my knee by the fire and sleep ; and when the windows were open, it would never attempt, nor seemed to have the least inclination, to fly out ; so that I last ventured to entice it out in the garden, to see whether it would return. I with difficulty enticed it out at the door with a spoon of milk : it returned twice to the room ; the third time it ventured into a little tree ; it then fled and perched on my hand, and drank milk out of the spoon ; from thence it flew to the ground on some chickweed, in which it washed itself, and got into a holly-bush to dry. After getting among the leaves, I could see no more of it, but heard it call several times. I suppose after it got quite dry that it left the country directly, as I could never see or hear it afterwards, and it was then the end of November, when all the others had left for some time."[1]

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[1] Sweet's Br. Warblers.

CHIMNEY SWALLOW (*Hirundo rustica*, PLINY.)

* Hirundo rustica, *Linn.* Syst. 1. p. 343. 1.—*Gmel.* Syst. 1. p. 1015.—*Lath.* Ind. Orn. 2. p. 572.—Hirundo domestica, *Raii*, Syn. p. 71. A. 1.—*Will.* p. 155. t. 39.—*Briss.* 2. p. 486. 1.—Hirondelle de Cheminée ou domestique, *Buff.* Ois. 6. p. 591. t. 25. f. 1.—*Ib.* pl. Enl. 543. f. 1.—*Temm.* Man. d'Orn. 1. p. 427.—Die Rauch Schwalbe, *Bechst.* Naturg. Deut. 3. p. 902.—*Meyer*, Tasschenb. 1. p. 276.—Chimney or Common Swallow, Br. Zool. 1. No. 168. t. 58.—Arct. Zool. 2. No. 330.—*Will.* (Ang.) p. 212.—*Albin*, 1. t. 45.—*Lewin's* Br. Birds, 3. t. 123.—*Lath.* Syn. 4. p. 561.—*Ib.* Supp. p. 192.—*Mont.* Orn. Dict.—*Ib.* Supp.—*Bewick's* Br. Birds, 1. p. t. 261.—*Low's* Faun. Orcad. p. 73.—*Shaw's* Zool. 10. p. 84.—*Walc.* Syn. 2. t. 251.—*Pult.* Cat. Dorset. p. 13.—*Selby*, pl. 42. fig. 1. p. 126.*

This species weighs between five and six drams; length six inches and a half; bill black; irides hazel; forehead and chin ferruginous red; crown of the head and the whole upper parts black, glossed with purplish blue; breast and belly dusky white; the tail is much forked; the two middle feathers plain, the rest marked on the inner webs, near the end, with an oval white spot; legs dusky.

The female has not the exterior feathers of the tail so long as in the other sex.

The swallow seems to be known in most parts of the world. In England it is a very common bird, coming to us in the spring, and departing in September to more mild climates. It is said to winter in Senegal, and probably in many other warm countries. It has taken the name of Chimney Swallow with us, on account of breeding in our chimneys. In some countries it makes its nest against rocks; with us it is not unusual to find the nest in outhouses, upon the beams or rafters.

The nest is made of mud, plastered together and lined with feathers, and is open at top. The eggs are four or five in number, white, speckled with rusty red, weighing about thirty grains.

*It usually selects a chimney to build in; and according to White seems to prefer one where there is a constant fire, most probably for the sake of warmth. "Not," he adds, "that it can subsist in the immediate shaft where there is a fire, but prefers one adjoining to that of the kitchen, and disregards the perpetual smoke of that funnel, as I have often observed with wonder." In Scotland I have observed that "the straw-built shed," barns, and other outhouses are its chosen haunts, and that it more rarely builds in chimneys than it does in England. In Sweden it is the same, and hence it is called the barn swallow (*Ladu swala*); while in the south of Europe, where chimneys are rare, it builds in gateways, porches, and galleries, or against the rafters of outhouses, as in Virgil's time—

antè
Garrula quàm tignis nidum suspendat hirundo.

At the celebrated bacchanalian village of Hockheim on the Maine, in 1829, I observed about a dozen of these nests suspended from the rafters of a large coach-house. We should not have supposed that a bird thus building in an elevated chimney would have thought of going under ground for a nestling place; yet Mr. White remarks, that he has known a swallow build down the shaft of an old well, through which chalk had been formerly drawn up for the purpose of manure. To me this is not at all remarkable, for I have seen them very commonly build in the shafts of old coal-pits, such as at Sorn, in Ayrshire, Quarreltown, Renfrewshire, and Musselburgh, near Edinburgh. What was more singular, they did not seem deterred by the continual passing and re-passing of the workmen, who consider it unlucky to injure the birds; and though, for the most part, they might find a sufficient number of old abandoned shafts, they do not appear to have any peculiar preference for these.* [1]

The food of this bird, as of the whole genus, is winged insects, in catching which it is extremely dexterous; and, considering the velocity of its flight, its sight must be incomparably quick. It makes its first appearance with us in April, sometimes as early as the first week, if the weather is mild; and it sometimes happens that after their arrival a long easterly wind prevails, which so benumbs the insect tribe, that thousands die for want of food. We recollect as late as the 9th of May the swallows on a sudden disappeared from all the neighbouring villages around. The thermometer was at 42, and we were at a loss to conceive what was become of these birds, which a day or two before were seen in abundance. But by chance we discovered hundreds collected together in a valley close to the sea side, at a large pool that was well sheltered. Here they seem to have found some species of fly, though scarce sufficient to support life; for many were so exhausted, that after a short time on the wing they were obliged to pitch on the sandy shore.

Why it should be necessary to account for the loss of this tribe of birds in the winter, by making them to immerse during that season, is extraordinary, when at the same time no doubts have been entertained of the migration of other birds, whose powers of wing are far inferior. And yet there have not been wanting persons who have declared they have seen them drawn up in nets, and restored from their benumbed state. Others are said to lie torpid in cliffs, hollow trees, and such places: but even this more probable account is to be doubted, except perhaps with respect to a few of the latter broods, which had not strength

[1] Architecture of Birds, p. 114.

to undertake so long a flight. If we calculate the velocity of this bird on the wing, and that it can and does suspend itself in the air for fourteen or sixteen hours together in search of food, it cannot fly over a less space than between two and three hundred miles in that time. We have frequently observed upon the downs, swallows follow, and repeatedly fly round with great ease, a horse in full trot, at a rate not less than ten miles an hour, in order to pick up the flies roused from the grass by the motion of his feet.

It is certain, however, some few are seen in the winter months before Christmas, although they had all disappeared long before.

CHIP CHOP.—A name for the Chiff-Chaff.

CHOUGH (*Pyrrhocorax graculus*, Temminck.)

*Pyrrhocorax graculus, *Temm.* Man. d'Orn. 1. p. 122.—Corvus graculus, *Linn.* Syst. 1. p. 158. 18.—*Gmel.* Syst. 1. p. 377.—*Lath.* Ind. Orn. 1. p. 165. 41.—Corvus docilis, *Gmel.* Syst. 3. p. 385. t. 39.—Coracias, seu Pyrrhocorax, *Raii*, Syn. p. 40. A. 6.—*Will.* p. 86. t. 19.—*Briss.* 2. p. 3. t. 1.—Corvus eremita, *Gmel.* Syst. 1. p. 377.—*Lath.* Ind. Orn. 1. p. 166. 42.—Le Coracias, ou Le Coracias Huppé ou sonneur, *Buff.* Ois. 3. p. 1. and 9. t. 1.—*Ib.* pl. Enl. 255.—Stein-Krahe, *Bechst.* Naturg. Deut. 2. p. 1238.—*Ib.* Tasschenb. Deut. p. 91.—*Meyer*, Tasschenb. Deut. 1. p. 101.—*Ib.* Vög. Deut. t. Heft.—Hermit Crow, *Lath.* Syn. 2. p. 403. 41.—Gesner's Wood Crow, p. 396.—Cornish Chough, *Albin*, 2. t. 24.—*Will.* (Angl.) p. 126. t. 19.—*Haye's* Br. Birds, t. 6.—Red-legged Crow, Br. Zool. 1. No. 80. t. 35.—*Lewin's* Br. Birds, 1. t. 41.—*Lath.* Syn. 1. p. 401.—*Mont.* Orn. Dict.—*Ib.* Supp.—*Pult.* Cat. Dorset. p. 6.—*Bewick's* Br. Birds, 1. p. 80.—*Shaw's* Zool. 7. p. 378.—*Selby*, pl. 33. p. 81.

Provincial.—Cornish Daw. Cornwall Kae. Killigrew. Chauk-Daw. Market-Jew Crow.*

This species weighs about fourteen ounces; length near seventeen inches. The bill is longer and more slender than in any of the genus, a little curved, of a deep orange-red, much resembling red coral, and is remarkably brittle; irides hazel.

The plumage is wholly black, glossed with purple; legs and feet red; claws black, strong, and much hooked.

The female differs in not being so large, and in the bill being shorter; the plumage in both sexes is alike.

This bird with us seems to be chiefly confined to Devonshire, Cornwall, and Wales, where it is found on most of the bold rocky shores. It has been seen on the cliffs of Dover, supposed to have escaped from confinement, and stocked those rocks. But we believe the breed in those parts is again lost.

Mr. Pennant observes that it is found in some parts of Scotland, and in the Hebrides. It is seldom seen at any great distance from the sea-coast, where it breeds in the rocks and caverns; and not unfrequently in ruined towers. A pair of these birds had, for many years, bred in the ruins of Crow Castle, in the vale of Llangollen in Denbighshire;

by accident one of them was killed, and the other continued to haunt the same place for two or three years, without finding another mate.

The nest is composed of sticks, and lined with a great quantity of wool and hair. The eggs are generally five in number, of a dull white, sprinkled with light-brown and ash-coloured spots, most at the larger end; their weight about three drams and a half.

The note of this bird is somewhat like that of the common jackdaw, but more shrill. Its food is grain and insects, but in confinement it will feed greedily on flesh, becomes extremely tame and docile, active and crafty, will hide part of its food, and not unfrequently things of value. We are told that houses have been set on fire by its carrying away lighted sticks in its bill. Some are said to acquire black legs in autumn; this, however, does not appear to be the case in England, where they remain all the year and rarely shift their quarters; in other parts they would seem to be migratory, as it has been observed in Egypt to attend the inundation of the Nile in the months of September and October. It is found upon the Alps; in the southern latitudes of Siberia, about Mount Caucasus; and is said to be met with in the mountains of Persia, where the bill and legs are described to be black; a circumstance that gives rise to some doubt as to the identity of the bird, since the red bill and legs attained the first year, are with us orange, from the nest. These birds are extremely docile, but very mischievous; their curiosity is beyond bounds, never failing to examine any thing that is new to them. It is the nature of this bird to affect elevated situations, and even when tamed they never lose an opportunity of attaining the highest elevation within their reach. One in Colonel Montagu's possession would stand quietly for hours to be soothed and caressed, but would resent an affront both with bill and claws.

Small insects are evidently the natural food of this bird; the common grass-hopper is a great dainty, the fern-chaffer (*Anomala* Köppe *horticola*,) is a favorite morsel, and is swallowed whole, but if the great chaffer (*Melolontha*) be given to him, he places it under his foot, pulls it to pieces and eats it piece-meal. Worms he rejects, but flesh and bread he will eat greedily, and sometimes barley with the pheasants and other granivorous birds; hempseed he never refuses.

He eats little at a time, and seems to regurgitate like ruminating quadrupeds. Whether this is a part of the last meal, in a reservoir under the tongue, as in the rook, or proceeds from the craw, we have not at present the means to determine; but the act of regurgitation is marked by reiterated motions of the head, as if something stuck in

his bill which he wished to swallow. If food is offered to him when full fed, he appears to urge that motion, as if trying whether more could be conveniently taken.

The bird above alluded to, with a great share of attachment, was naturally pugnacious, and would not hesitate to attack the hand which had been caressing him the moment before. To children and strangers he seemed to have an utter aversion, and would approach them with the most daring impudence, challenging them vociferously; at these moments his affections seemed quite changed, and his best benefactors could not touch him with impunity.

CHURCH OWL.—A name for the Barn Owl.

CHURN OWL.—A name for the Nightjar.

CINEREOUS EAGLE.—A name for the Eagle (*Falco albicilla.*)

CINEREOUS GODWIT.—A name for the Greenshank.

CINEREOUS SHRIKE.—A name for the Butcher Bird.

CINCLUS (Bechstein.)—*Dipper, a genus thus characterised. Bill rather slender, slightly bent upwards, compressed at the sides, and the cutting edges bending inwards; the upper mandible notched at the tip and bending over the lower one. Nostrils at the sides of the base naked, cleft lengthwise and partly covered by a membrane. Head small, the forehead narrow and low. Body short and compact. Legs short, with the feet having three toes before and one behind, the outer toe joined at its base to the middle one, the shank being longer than the middle toe. Wings short, the first quill being not half the length of the second, which also is shorter than the third and fourth.*

CIRCUS (Auctores.)—*A genus thus characterised. Bill of middle length. Nostrils somewhat oval. Shanks elongated. Shins plated with scales. The third quill the longest in the wing. Sides of the head furnished with a circle of feathers; the disk similar to that of the owls (*Strigidæ.*)—Vigors.*

CIRL-BUNTING (*Emberiza cirlus*, Linnæus.)

*Emberiza cirlus, *Linn.* Syst. 1. p. 311. 12.—*Gmel.* Syst. 1. p. 879. sp. 12.—*Lath.* Ind. Orn. 1. p. 401. sp. 10.—*Raii*, Syn. p. 93. 4.—*Will.* p. 196.—Emberiza elcathorax, *Bechst.* p. 135. sp. 4.—Le Bruant de Haie, ou Zizi, *Buff.* Ois. 4. p. 347.—*Ib.* pl. Enl. 653. f. 1. old male, f. 2. the young.—Bruant Zizi ou de Haie, *Temm.* Man. d'Orn. 1. p. 313.—Zaunammer, *Bechst.* Naturg. Deut. 3. p. 292.—*Meyer*, Tasschenb. Deut. 1. p. 185.—Cirl-Bunting, *Lath.* Syn. 3. p. 190. 26.—*Mont.* Orn. Dict. 1.—*Ib.* Supp. and fig. of male.—*Ib.* Trans. Linn. Soc. 7. p. 276.—*Shaw's* Zool. 9. p. 356. t. 57. a copy from Montagu's figure.—*Selby*, pl. 52. fig. 4. p. 245.*

The length of this species is six inches and a half; weight about seven drams. The bill is of a bluish lead-colour above, paler beneath; irides hazel. The crown of the head, nape of the neck, and upper

part of the breast, is of a fine olive-green, the first streaked with dusky; from the upper mandible through the eye, a dusky stroke; above and beneath the eye a bright yellow one; throat black, slightly tipped with brown, running into a bar under the yellow on the cheek; beneath this is a gorget of beautiful bright yellow. The back and scapulars are of a fine chestnut-brown, the former marked with dusky streaks, the margin of the feathers with olive; rump olive-brown; upper tail coverts inclining to chestnut; the smaller wing coverts olive-green; greater coverts dusky, their outer webs chestnut-brown; greater quills dusky, edged with green on the exterior webs; smaller quills chestnut, dusky down their middle. Across the breast is a band of chestnut, mixed with yellow; belly and under-tail coverts yellow, the latter dusky on the shafts; sides more inclining to brown; the under-wing coverts bright yellow; the two middle feathers of the tail chestnut-brown, the rest black, except the two exterior on each side, which have an oblique bar of white from the tip half way; and the outmost feather is white throughout the whole of the exterior web; the legs are brown; claws dusky.

The female, in general, weighs half a dram less than the male.

The upper part of the head is olivaceous brown, streaked with dusky; over the eye a dull yellow streak, passing down the side of the head; cheeks brown, on which is a yellowish spot; on each side the lower mandible is a broken streak of dusky, passing downwards; chin and throat dull yellow, the latter streaked with dusky; the back part and sides of the neck and breast olivaceous-brown, with dusky streaks; belly and sides pale yellow, with large dusky streaks on the latter; the upper part of the body and wings like the other sex, but the colours less bright.

We first discovered this species near Kingsbridge, in the winter of 1800, not uncommon amongst flocks of yellow hammers and chaffinches, and procured several specimens of both sexes, killed in different places six or seven miles from that place. They are indigenous to Devonshire, but seem to be confined to the southern parts of that county contiguous to the coast, having found them extending as far as Teignmouth, at both of which places we found their nests; but have never observed them far inland. It generally builds in furze, or some low bush; the nest is composed of dry stalks, roots, and a little moss, and lined with long hair and fibrous roots. The eggs are four or five in number, cinereous white, with irregular long and short curved dusky lines, terminating frequently with a spot at one end; size rather inferior to those of the yellow hammer, to which it bears great resemblance.

These birds pair in April, and begin laying early in May. Insects we found to be the favourite food of the young, especially the common grasshopper. When they could peck, small seeds, particularly canary, were acceptable. Oats they greedily devoured, after dexterously depriving them of the outer husk. The monotonous song of the male was incessant, shrill, and piercing; so much resembling the vociferous call notes of the babillard, that it requires considerable knowledge of their language not to mistake the one for the other. We are assured by Mr. Austin, that he shot a male of this species, in 1803, near Bridgewater, and in April, 1805, we observed a pair between Bridgewater and Glastonbury. Another specimen, in the collection of Col. George of Penryn, was shot near that place. According to continental authors, it is abundant in the warmer parts of France, in Italy, and on the shores of the Mediterranean; but is not found in the colder regions.

The female might readily be mistaken for that sex of the yellow hammer at a little distance, but is materially different when compared, especially in the chestnut-colour of the upper parts of this bird. The note is simple and plaintive, similar to that of the yellow hammer, but shorter, not so shrill, and the latter part not drawn out to such a length.

It is remarkable that so common a bird as the Cirl-Bunting seems to be in the West of England, should have so long escaped the notice of British naturalists; but in all probability this has been occasioned by their locality. It is said to be only found on the continent in the warmer parts of France and Italy; so with us it seems confined to the mildest part of England; but the winter of 1800, which was severe in Devonshire, did not force them to seek a warmer climate, but, on the contrary, they continued gregarious with other small birds, searching their food amongst the ploughed lands.

CLACK GOOSE and CLAKES.—Names for the Bernacle Goose.

CLATTER GOOSE.—A name for the Brent Goose.

CLOACA.—* The termination of the straight gut (*rectum*) in birds, named, so Atkinson says, from their having no urinary bladder, the urine being received into this cloaca.*

CLOVEN-FOOTED GULL.—A name for the Stern.

CLUCKING DUCK.—A name for the Bimaculated Duck.

COALLY-HOOD.—A name for the Bullfinch.

COBB (*Larus marinus*, Linnæus.)

* Larus marinus, *Gmel.* 2. 598.—*Lath.* Index, 2. 813. 6.—*Temm.* 2. 760.—Larus niger, *Briss.* 6. 158. 1.—Le Goéland noir, *Buff.* 8. 405. t. 31.—Larus maximus, ex albo et nigro varius, *Raii*, Syn. 127. A. 1.—Great black and white Gull, *Will.* 344.—*Albin*, 3. t. 94.—Black backed Gull, *Penn.* Br. Zool. 2. 242.—

Lath. Syn. 6. p. 371. 2.—*Lewin's* Br. Birds, 6. t. 208.—*Pult.* Cat. Dorset. p. 18.—*Wale.* Syn. t. 112.—*Flem.* Br. Anim. p. 140.*

The weight of this species is four pounds and three quarters; length near thirty inches; breadth five feet nine or ten inches.

Bill bright yellow, very thick and strong, three inches and a half in length; on the lower mandible is a blood-red spot, dusky in the middle; irides fine yellow; eyelids red-orange. The head, neck, rump, tail, and whole under parts, white; back and wing coverts dusky black; prime quills black, the first tipped with white for two inches or more, the second the same, with a black bar across the white, the rest more slightly tipped with white; the secondaries are also tipped more or less with white; as are their coverts and two or three of the scapulars; legs flesh colour.

This bird and the silvery gull, hereafter described, have hitherto been confounded for the same species; but from frequent opportunities of observing their manners, as well as by dissection, proving both sexes to be alike in plumage, we are able without doubt to pronounce them distinct species.

It is not a very plentiful species, but is sometimes seen on most of our coasts, but no where so plentiful as on the extensive sandy flats of the coast of Caermarthenshire, between Laugharne and Tenbeigh, where we have seen it at all times of the year.

They generally keep in small flocks of eight or ten, sometimes in pairs, but never herd with the other gulls.

It was natural to believe, as they were seen on that coast all the summer, they must breed somewhere near, but in our researches from that part as far as St. David's we could not discover where they bred, but were informed by the fishermen, that they breed on the steep Holmes, and on Lundy Islands in the Bristol channel. The silvery gull, as well as the herring gull, we found the nests of in great abundance but none of these birds were to be seen in the same places.

The young, for the first two or three years, are mottled all over with brown and white; the bill is light horn colour, tip black; quill-feathers dusky; tail mottled, near the end a dusky bar; tips white; irides and orbits dusky. We shot several birds of this description in company with them, of both sexes, their weight and size little inferior; and as these are always found to associate with them, and as there is no other species of gull half so large, there can be no doubt of its being the young of this bird.

In this imperfect state this has been described *by some authors for a distinct species, under the title of Wagel; others who have not con-

sidered the size as essential, may have made the young of the silvery and herring gulls, the Wagel; all of which are mottled nearly in the same manner during the first two or three years. We have seen the young of this species with the dark colour appearing on the back. It is a great enemy to the fishermen; and will tear and devour the largest from the hooks, when left dry by the ebbing tide.*

COBBLE (*Colymbus septentrionalis*, LINNÆUS.)

Colymbus septentrionalis, *Linn.* Syst. 1. p. 220. 3.—*Gmel.* Syst. 2. p. 586.—Ind. Orn. 2. p. 801. 5.—*Temm.* 2. p. 916.—Mergus gutture rubro, *Briss.* 6. p. 111. 3. t. 11. f. 1.—*Ib.* 8vo. 2. p. 390.—Le Plongeon à gorge rouge, *Buff.* 8. p. 264.—Red-throated Diver, or Loon, Br. Zool. 2. No. 240. t. 85.—*Ib.* fol. 140.—Arct. Zool. 2. No. 443.—*Edw.* t. 97.—*Lath.* Syn. 6. p. 344. 5.—*Pult.* Cat. Dorset. p. 17.—*Walc.* Syn. 1. t. 100.—*Lewin*, Br. Birds, 6. t. 230.—*Don.* Br. Birds, 4. t. 78.—Colymbus stellatus, *Gmel.* Syst. 2. p. 587. 17.—Ind. Orn. 2. p. 800. 3.—Maximus caudatus, *Raii*, Syn. p. 125. A. 4.?—*Will.* p. 258. t. 61.—Colymbus caudatus stellatus, *Will.* t. 62.—Mergus minor, *Briss.* 6. p. 108. 2. t. 10. f. 2.—*Ib.* 8vo. 2. p. 389.—Colymbus striatus, *Gmel.* 1. p. 586. 16.—Striped Diver, *Penn.* Arct. Zool. 2. p. 519. 442.—Le petit Plongeon, *Buff.* 8. p. 254. t. 21.—Speckled Diver, or Loon, Br. Zool. 2. No. 239.—*Ib.* fol. 139. t. K.—Arct. Zool. 2. No. 441.—*Albin*, 1. t. 82.—*Lath.* Syn. 6. p. 341. 3.—*Pult.* Cat. Dorset. p. 17.—*Walc.* Syn. 1. t. 101.—*Lewin's* Br. Birds, 6. t. 228.—First Speckled Diver, Second ditto, *Bewick*, 2. p. 189. 191.

Provincial.—Sprat-Loon. Greatest Speckled Diver.

This species weighs about three pounds; length near two feet and a half; bill black, three inches long, and slender; irides hazel. The head and upper part of the neck before, cinereous; the rest of the neck, running up behind almost to the head, is marked with longitudinal dusky and white lines; on the throat is a patch of chestnut red; the upper part of the body, wings and tail, dusky; the feathers of the back and scapulars slightly margined with brown; the under parts of the body white; the sides under the wings and thighs streaked with dusky; vent brown; legs dusky on the outside, lighter within.

The bird from which this description is taken, was killed at Hastings in Sussex, in the winter of 1795, at which time a great many were seen on that coast.

This, like others of the genus, seems subject to some variety; as we are informed some have the head and chin dotted with brown, and the chestnut mark on the throat extends farther on the neck. Whether this variety is occasioned by age or sex is not ascertained.

This bird is said to breed in the northern parts of Scotland. In the breeding season it frequents the lakes, making a nest amongst the reeds and flags, and lays two eggs of an ash-colour, marked with a few black spots. It is found in most of the northern parts; is common in Greenland and Iceland; in the latter it is said to make its nest amongst the grass on the shores contiguous to the water, composed of moss and grass, and lined with down.

It is frequently taken in nets, by diving after the fish which are entangled. In the general synopsis mention is made of no less than fourteen having been taken by this means out of a single net at Hudson's Bay at one tide.

The young Cobble has been made a distinct species, and is thus described in the first edition of this work.

The weight of this species is about four pounds; length twenty seven inches; bill three inches long, of a pale horn-colour; ridge of the upper mandible dusky; irides yellowish brown.

The head is dusky, speckled with grey; the hind part of the neck plain dusky; the sides of the head under the eyes, the chin, and throat, white; the fore part of the neck speckled with ash-colour; back and whole upper parts dusky, marked with numerous small oval white spots; quills and tail dusky; in some the latter is slightly tipped with white; the whole under parts of the body white, except on the sides under the wings, which are streaked with dusky; the thighs dusky brown; the vent and under tail coverts mottled with grey; the tail consists of twenty-two unequal feathers, the outer ones not being half so long as the middle ones; legs dusky brown, inside greenish grey.

The female is not so large, and the spots on the back and scapulars not so large and distinct.

The Cobble is the most common species found in this country; it is frequently seen in winter in our bays and inlets, and sometimes in fresh water rivers and lakes. It is observed to attend the sprats in the river Thames, for which reason the fishermen call it the sprat-loon; this, like the rest of its genus, retires northward to breed; it is said to be common about the Baltic, and the White Sea; it lays two eggs in the grass, upon the borders of lakes, the size of those of a goose; dusky, with a few black spots.

In making a tour through the fens of Lincolnshire, we had an opportunity of comparing the rate at which this bird can swim, both on the surface and under water; we had approached very near to one unobserved, as late as the twenty-fourth of May; he dived the instant he perceived us, and in the course of half-a-mile gained upon us considerably, both under water and on the surface; although the foot-path was good, and in a straight line. The distance from his place of immersion and emersion seemed to be about eighty or ninety yards. It is observable that all birds, and even quadrupeds, residing much in the water, are aware of their superior powers of velocity under the surface, and invariably dive when pursued, or where speed is required, rising occasionally to the surface for renewed respiration.

COBLER'S AWL.—A name for the Avoset.

COBWEB.—A name for the Beam-Bird.

COCKANDY.—A name for the Puffin.

COCK OF THE WOOD.—A name for the Capercalzie.

CODDY MODDY.—The Gull in its first year's plumage.

COLD FINCH.—A name for the Beam-Bird.

COLE GOOSE.—A name for the Cormorant.

COLE TIT (*Parus ater*, GESNER.)

* Parus ater, *Linn.* Syst. 1. p. 341.—*Gmel.* Syst. 1. p. 1009. sp. 7.—*Lath.* Ind. Orn. 2. p. 564. 8.—*Raii*, Syn. p. 73. A. 2.—*Will.* p. 175. t. 43.—Parus Atricapillus, *Briss.* 3. p. 551. 5.—La petite Charbonnière, *Buff.* Ois. 5. p. 400.—Mesange petite Charbonnière, *Temm.* Man. d'Orn. 1. p. 288.—Tannemeise, *Bechst.* Naturg. Deut. 3. p. 853.—*Meyer*, Tasschenb. Deut. 1. p. 268.—Cole Titmouse, Br. Zool. 1. No. 164. t. 57. f. 3.—Arct. Zool. 2. No. 327.—*Will.* (Ang.) p. 241. t. 43.—*Lath.* Syn. 4. p. 540. 7.—*Lewin's* Br. Birds, 3. t. 180.—*Mont.* Orn. Dict.—*Ib.* Supp.—*Pult.* Cat. Dorset. p. 10.—*Don.* Br. Birds, 4. t. 79.—*Bewick's* Br. Birds, 1. p. t. 241.—*Shaw's* Zool. 10. p. 56. t. 6.—*Selby*, pl. 51. fig. 3. p. 231.*

This species weighs about two drams and a quarter; length four inches and a quarter. The bill is dusky; irides hazel. Crown of the head glossy black, divided on the hind part with a white spot; the throat and underside of the neck, black; cheeks white; back, rump, and tail, of a bluish grey, inclining on the rump to a buff colour; breast and belly of a yellowish white; the sides more yellow; quill-feathers like the tail; the coverts of the secondaries, and the smaller coverts immediately above them, are tipped with white; legs lead colour.

As this bird has been considered by some naturalists to be the same as the marsh tit, we shall remark that the head of this is invariably of a glossy black, that of the other is of a dull sooty black; the black under the chin extends much lower down in this, in both sexes, than in the other species; the white mark on the head in this is never to be found in either sex of the other; and the tail of this is nearly a quarter of an inch shorter.

It must also be observed, that in the numerous specimens we have examined, no white was ever to be found on the coverts of the wings in the marsh tit, which is constantly met with in this. But in the young of this species, before the white spot is thrown out on the head, some white in the wings is visible; in which state a figure is given in the folio edition of the British Zoology for the marsh tit.

Mr. Willughby has well defined the distinction of these birds. Dr. Latham seems to have doubted the distinction, and appears to be more

confirmed in the opinion from an error in Sepp, who has given a figure of each as male and female.

We can, however, with certainty refute this opinion, from various opportunities of attending to the nests of both species.

The nest of this bird is placed in some hole, either in a wall or a tree; it is composed of moss and wool, lined with hair; the eggs are six or seven in number, less than those of the marsh tit, of the same colour, white, spotted with rusty red; but the spots are smaller and more numerous; their weight is fourteen or fifteen grains.

The Cole Tit is not so plentiful a species as the marsh tit, keeps more in the woods, and seems to live entirely on insects, as we have never been able to discover it partaking of flesh or grain with the other species; its note is also different.

"In Scotland," says Selby, "I have found it abundantly in all the pine forests, which seem to be its appropriate and favourite habitat, to the comparative exclusion of the other species. In these extensive tracts, covered by the natural growth of the country, or planted by the great landed proprietors, it has both a secure retreat and a constant supply of food, consisting of the aphides, larvæ, and others of the insect tribe that are peculiar to the different species of fir, together with the seeds and berries of various evergreens. It is very lively in all its motions, and rivals the blue tit in the attitudes it assumes in quest of its prey, amid the higher branches of the pines. Its note is shriller and more pleasing than in the other species, and tends much to break the gloomy solitude of the tracts it frequents."

COLE MOUSE.—A name for the Cole Tit.

COLK.—A name for the King Eider.

COLUMBA (Linnæus.)—*Dove or Pigeon, a genus thus characterised. Bill (save at the point, which is bent down) compressed and straight, the base of the upper mandible being covered with a soft gristly substance, in which the nostrils are placed towards the middle of the bill, forming a cleft lengthwise. The feet having three toes before entirely separated, with one hind toe articulated on the heel. Wings of middle size, the first quill rather shorter than the second, which is the longest in the wing.*

COLUMBIDÆ (Leach.)—*Birds of the Dove or Pigeon kind.*

COLYMBIDÆ (Leach.)—*Birds of the Diver kind.*

COLYMBUS (Latham.)—* Diver, a genus thus characterised. Bill of middle size, strong, straight, much pointed, compressed. Nostrils at the sides of the base, concave, oblong, half shut by a membrane, pierced from part to part. Legs of middle length, drawn towards the

belly beyond the equilibrium of the body; shanks compressed; three toes before, very long, entirely webbed; the hind toe short, articulated upon the shank, carrying a small loose membrane. Claws flat. Wings short; the first quill the longest. Tail very short and rounded.*

CONIROSTRES (Cuvier.)—*Birds having conical bills.*

COOT (*Fulica atra*, Linnæus.)

Fulica atra, *Linn.* Syst. 1. p. 257. 2.—*Gmel.* Syst. 2. p. 702.—Fulica aterrima, *Linn.* Syst. 1. p. 258. 3.—Fulica leucorex, *Linn.* Syst. 2. p. 703. 21.—Fulica Æthiops, *Ib.* 2. p. 704. 22.—Fulica atra, *Raii*, Syn. p. 116. A. 1.—*Will.* p. 239. t. 59.—*Briss.* 6. p. 23. t. 2. f. 2.—*Ib.* 8vo. 2. p. 365.—Ind. Orn. 2. p. 77. No. 1.—*Temm.* 2. p. 706.—Fulica major, *Raii*, Syn. p. 117. 2.—Le foulque au morille, *Buff.* 8. p. 211. t. 18.—Common Coot, Br. Zool. 2. No. 220. t. 77. 16. f. 132. t. F.—Arct. Zool. 2. No. 416.—*Will.* (Angl.) p. 319. t. 59.—*Albin*, 1. t. 83.—*Walc.* Syn. 2. p. 167.—*Lath.* Syst. 5. p. 275. 1.—*Ib.* Supp. p. 259. 1. A. & B.—*Lewin's* Br. Birds, 5. t. 195.—*Don.* Br. Birds, 5. t. 106.—*Pult.* Cat. Dorset. p. 416.—*Mont.* Orn. Dict.—Greater Coot, *Penn.* 2. p. 221.—*Will.* (Angl.) p. 320.—*Lath.* Syn. 5. p. 277. 2.—*Walc.* Syn. 2. t. 168.

Provincial.—Bald Coot. Belty Coot.

This species sometimes weighs as much as thirty ounces; its length is eighteen inches. The bill and callous part of the forehead pale flesh colour; irides hazel. The whole plumage black, except on the belly, which is of a dusky ash colour; and a line of white on the ridge of the wing; legs and toes dark green.

The Coot is a very common bird in this country; it breeds in many of our lakes, rivers, and large ponds, forming a nest of flags amongst the reeds and other aquatic plants close to the surface of the water.

The eggs are six or seven in number, of a dirty white, sprinkled over with small deep rust-coloured spots. Many of these birds never forsake their breeding-places, even in small pieces of water; and notwithstanding they are frequently roused, cannot be compelled to fly farther than from one side to the other. The vast flocks which are seen in Southampton river and other salt-water inlets, in winter, most probably breed farther north; at least a great part of them. At this season of the year it is commonly sold in our markets, frequently ready picked. They look exceedingly white, but the flavour is rather fishy. Most authors give as a specific character a yellow band, or garter, on the bare part above the knee. This, however, does not always hold good, and may depend on the season or sex.

It is said to breed in great abundance in the Isle of Sheppy, where the inhabitants will not suffer the eggs to be taken, as the birds are a great article of food. They place their nests among the flags on the surface of the water; and by heaping a quantity of materials together, raise the fabric above the water so as to keep the eggs dry. In this buoyant state, a sudden gale of wind has been known to draw them

from their slender moorings; and we are assured that the nests have been seen floating on the water, with the birds upon them.

COOT FOOT (*Lobipes hyperboreus*, CUVIER.)

Phalaropus hyperboreus, *Lath.* Ind. Orn. 2. p. 773. 1.—*Temm.* 2. p. 709.—Tringa hyperborea, *Gmel.* 1. p. 675. 9.—Phalaropus Williamsii, *Linn.* Trans. 8. p. 264.—Larus fidipes alter nostras, *Raii*, Syn. p. 132. A. 7.—*Will.* p. 270.—Le Phalarope cendré, *Buff.* 8. p. 224.—Coot-footed Tringa, *Edw.* t. 143.—Red Phalarope, Br. Zool. 2. No. 219. t. 76.—*Lath.* Syn. 5. p. 270. 1.‖ (mas.) 271. (fem.)—*Lewin's* Br. Birds, 5. t. 193.—*Walc.* Syn. 2. t. 157.—Coot-foot, *Flem.* p. 100.

FEMALE.

Tringa fulicaria, *Linn.* Syst. 1. p. 249. 10.—*Gmel.* Syst. 2. p. 676. 6.—Phalaropus rufescens, *Briss.* 6. p. 20. 4.—*Ib.* 8vo. 2. p. 363.—Le Phalarope rouge, *Buff.* 8. p. 225.—Red Coot-footed Tringa, *Edw.* t. 142. (good fig.)

*YOUNG.

Phalaropus fuscus, *Lath.* Ind. Orn. 2. p. 776. 4.—Tringa fusca, *Gmel.* 1. p. 675. 33.—Coot-footed Tringa, *Edw.* Glean. pl. 46. (good fig.)—Brown Phalarope, *Lath.* Ind. Orn. 4. p. 274.*

Size of the preceding species; length eight inches: bill black, an inch long, slender, strait, except at the end, which bends downwards. Top of the head, hind part of the neck, back, and scapulars, deep ash-colour; through the eye from the base of the bill, a dusky streak passing backwards; quill-feathers dusky; some of the secondaries tipped white; wing coverts ash-colour; the greater darkest, and tipped with white; the whole under parts, from chin to vent, white; in some the under part and sides of the neck are ferruginous, and the breast cinereous; in others the rump and upper tail coverts are banded dusky and white; tail dusky, dashed with cinereous; legs and feet black, or lead-colour.

Female. The head, throat, hind-neck, back, scapulars, and upper tail coverts, black, margined rufous; over the eye a pale rufous-brown streak; rump white, spotted with dusky; under parts from the throat dusky red; wings and tail as in the other sex.

From the authority of Dr. Latham, we give this as the female. It is so rare a species in England that few come under examination in a fresh state. Their manners and habits are probably the same as the other species before mentioned.

Inhabits the north of Europe; said to breed at Hudson's Bay, and lays four eggs. Sometimes called small Cloven-footed Gull, Scallop-toed Sandpiper.

COOT-FOOTED TRINGA.—A name for the young of the Coot-Foot.

COPPER FINCH.—A name for the Chaffinch.

CORACIAS (LINNÆUS.)—*Roller, a genus thus characterised; bill

scimitar-shaped, more high than broad, compressed, and straight; the upper mandible bent at the point; nostrils in the base of the bill, linear, and lateral, pierced diagonally, and partly covered by a feathered membrane; wings long and pointed, having the first quill shorter than the second, which is the longest in the wing; shank shorter than the middle toe; feet having three toes before and one behind; toes entirely divided.*

CORBIE.—A name for the Crow.

CORMORANT (*Carbo Cormoranus*, Meyer.)

Great Corvorant, *Bewick's* Br. Birds, 2. p. 381.—Crested Corvorant, *Ib.* 2. p. 388. Pelicanus Corbo, *Linn.* Syst. 1. p. 216. 3.—*Gmel.* Syst. 2. p. 573.—Ind. Orn. 2. p. 886. 14.—Corvus aquaticus, *Raii*, Syn. p. 122. A. 3.—*Will.* p. 248. t. 63.—Phalacrocorax, *Briss.* 6. p. 511. 1. t. 45.—*Ib.* 8vo. 2. p. 495.—*Flem.* Br. Anim. p. 117.—Grand Cormorant, *Temm.* 2. p. 894.—Le Cormoran, *Buff.* 8. p. 310. t. 26.—Cormorant, *Will.* (Angl.) p. 329. t. 63.—*Albin*, 2. t. 81.—Corvorant, Br. Zool. 2. No. 291.—*Ib.* fol. 159. t. I. 1.—*Lath.* Syn. 6. p. 593. 13.—*Lewin's* Br. Birds, 7. t. 263.—*Walc.* Syn. 1. t. 92.—*Pult.* Cat. Dorset. p. 21.

Provincial.—Great Black Corvorant. Cole Goose. Skart. Green Cormorant. Brougie. Norie.

Different opinions still exist amongst naturalists with respect to the crested cormorant and crested shag. Some maintaining that they are distinct from the common species, while others consider them as varieties only. We are enabled to prove, beyond all dispute, from incontrovertible facts, that the crested cormorant is no other than a variety of the common species. In the beginning of April, 1808, one of these birds was sent to us by Mr. Anstice, with all the marks of the crested cormorant. The sex of this specimen has not been ascertained, as it is now (December, 1809) in perfect health, but has been completely divested of all the marks that characterise the crested cormorant, having completely lost the crest, white band on the throat, the hoary neck, and the white on the thighs; in fact being completely metamorphosed into the Cormorant.

The specimen from which the following description is taken, was the largest we ever saw.

It weighed eight pounds; length three feet three inches; breadth four feet eleven inches; the length of the bill five inches, hooked at the point; irides green. The chin, and round the base of the bill to the eyes, bare and yellow; the head and neck black; back greenish black, glossed with purple, each feather bordered with fine deep black; scapulars and coverts of the wings the same, dashed with ash-colour; the whole under parts black, except a small patch of white on the throat; quills dusky black; the tail is rounded, and consists of fourteen

feathers, which is a great characteristic distinction of this species from the shag.

We have seen twenty or thirty of these birds together: in some the upper parts are dusky, dashed over with ash-colour; the under parts of the neck and breast light brown; the belly dirty white; in others the feathers of the head are a little elongated, forming a short pendant crest, and a patch of white on the thighs.

This variety of marking is, perhaps, common to the species, without any regard to age or sex. We have, however, upon dissection, generally found the females lightest coloured.

The Cormorant breeds on most of our rocky coasts, sometimes in consort with the shag. We have seen, on the coast of Wales, an insulated rock covered with their nests, which are composed of sticks and sea-weed. The eggs are generally three in number, colour white, weight about two ounces.

It frequently builds on the very summit of the highest rocks of the impending sea, while the shag rarely builds so high. In the winter, the Cormorant is frequently found in fresh-water rivers, at a considerable distance from the sea. In that season, we have seen eight or ten together far up the river Usk, perched upon a tree. The shag is never observed to quit the neighbourhood of the sea.

This bird is a great destroyer of fish; and, by frequent diving, the wings often become so wet as to incapacitate it from flying. It is said that it has been trained, and used for fishing in the manner hawks have been for fowling; and that, in order to prevent their swallowing the prey, a tight collar was put round the neck. *One of these birds kept by Colonel Montagu, was extremely docile, of a grateful disposition, and by no means of a savage or vindictive spirit. It was surprised under the banks of a rivulet, running into the Bristol Channel, by a Newfoundland dog, and not being in its accustomed plumage, was reported to him as a curious and unknown species.

Having reached him after a twenty-four hours' journey by coach, every sort of food at hand was offered to it, and rejected; even raw flesh was unacceptable, and no fish could then be procured: he was, consequently, compelled to cram it with raw flesh, which it took reluctantly, but without offering any offence with its formidable bill. Having retired to the library after seeing it fed, he was surprised, in a few minutes, to see the stranger walk boldly into the room, and join him at the fire side with the utmost familiarity, resuming the task of dressing its feathers, until it was removed to an aquatic menagerie. At the sight of water it became restless, and when liberated, plunged and dived incessantly for a considerable time without obtaining a single

fish: after this, it made no further attempt for three days, appearing convinced there were none to be found.

The dexterity with which this bird seizes its prey is incredible. Knowing its own powers, if a fish is thrown into the water at a distance, it will dive immediately, pursuing its course under water, in a direct line to that spot, never failing to take the fish, and that frequently before it falls to the bottom. The quantity it will swallow at a meal is astonishing; three or four pounds twice a day are readily devoured, the digestion being excessively rapid. If by accident a large fish sticks in the gullet, it has the power of inflating that part to its utmost, and while in that state, the head and neck are shaken violently, in order to promote its passage. This is a property we never observed in any other bird, but it is probably common to the rest of the tribe, or such as are destitute of nasal apertures. That all birds have a communication between their lungs, and the cavity of their body surrounding the *viscera*, more or less, is well known; but as there is no passage into the *œsophagus* but by the mouth, to effect this inflation, a violent compression of the body becomes necessary at the same time the bill is closed, and the air is forced back into the mouth and pressed into the gullet. It is observable, that in the act of fishing, this bird always carries its head under water, in order that it may discover its prey at a greater distance, and with more certainty than could be effected by keeping its eyes above the surface, which is agitated by the air, and rendered unfit for visional purposes. If the fish is of the flat kind, it will turn it in the bill, so as to reverse its natural position, and by this means only could such be got within the bill: if it succeeds in capturing an eel, which is its favorite food, in an unfavorable position for gorging, it will throw the fish up to a distance, dexterously catching it in a more favorable one as it descends. In thus turning the fish, the delatable skin under the bill is of great use, but is by no means deserving of the appellation of a pouch, not being capable of more distension than any other part of the *œsophagus;* nor can it be used as a reservoir for provisions, either for its own use, or for the use of its young, as asserted by some authors. Another action which seems peculiar to this bird and its congeners, is violently beating the waters with its wings, without moving from the spot, followed by a shake of the whole body, ruffling all its feathers, at the same time covering itself with water. This singular action it will repeat twenty times, with small intervals of rest, when it will retire to an elevated place on shore, and spread or flap its wings till they are dry. It lives in perfect harmony with the wild swan, goose, various sort of ducks, and other birds, but to a gull with a piece of fish it will instantly give

chase: in this it seemed actuated by a desire to possess the fish, for if the gull has time to swallow it, no resentment was offered. Apparently the sight of the fish created a desire of possession, which ceased when it had disappeared. If it got out, it never attempted to ramble; but walking direct to the house, would enter the first open door without deference to any one, regardless even of a dog, and, in fact, troublesomely tame.*

CORN CRAKE.—A name for the Land Rail.

CORN CRACKER.—A name for the Land Rail.

CORNISH DAW.—A name for the Chough.

CORN DRAKE.—A name for the Land Rail.

CORNISH GANNET.—A name for the Skua.

CORVIDÆ (Leach.)—Birds of the Crow kind.

CORVORANT.—A name for the Cormorant.

CORVUS (Linnæus).—* Crow, a genus thus characterised. Bill strong, curved like a pruning-knife, straight at the base, but bending slightly towards the tip. Nostrils, at the base of the bill, oval and open, covered by reflected bristly feathers. Wings pointed, the first feather being much shorter than the second, and the third and fourth being the longest in the wings. Legs and feet plated, with three toes before and one behind. Toes divided. Shank longer than the middle toe. *

COULTERNEB (*Fratercula arctica*, Brisson.)

* Fratercula Gesneri, *Aldrov.* Orn.—Alca arctica, *Gmel.* Syst. 2. p. 549.—*Lath.* Ind. Orn. 2. p. 792. 3.—Anas arctica, *Ray's Will.* p. 325.—Fratercula, *Briss.* 6. p. 81. 1.—*Flem.* p. 130.—Mormon Fratercula, *Temm.* 2. p. 934.—Le Macareux, *Buff.* 9. p. 358. 26.—Puffin, *Penn.* Br. Zool. 2. No. 232.*—*Mont.* Orn. Dict. 2.—Arct. Zool. 2. No. 427.—*Will.* (Angl.) p. 325.—*Albin*, 2. t. 78. 79.—*Edw.* t. 358. f. 1.—*Lath.* Syn. 5. p. 314. 3.—*Lewin's* Br. Birds, 6. t. 225.—*Don.* Br. Birds, 1. t. 8.—*Walc.* Syn. 1. t. 87.—*Pult.* Cat. Dorset. p. 17.

The weight of this species is between twelve and thirteen ounces; length exceeds twelve inches. The bill is of a very singular form; it is about an inch and a half deep at the base, much compressed sideways, and arched, but ends in a point, where the upper mandible is a little hooked: at the base of this mandible is an elevated rim, full of small punctures of a light colour; next to which is a space of bluish grey, at the bottom of which the nostrils are lodged at the edge, which is a long narrow slit; from thence it is orange-coloured with four oblique furrows; the under mandible corresponds in colour, but has only three furrows; irides hazel, in some greyish; orbits red; above the eye is a triangular callous protuberance, beneath an oblong one; the top of the head and whole upper parts are black, passing round the neck in a

collar; the sides of the head and all the under parts are pure white; the chin in some is grey, in others white, and the cheeks are grey; quills dusky; tail short, and consists of sixteen feathers; legs and feet orange; claws black, the inner one much hooked.

It is remarked that the bill of this bird varies much according to age; at first it has no furrows, and is of a dusky-colour, the yellow colour and furrows increasing with age.

These birds appear on many parts of our rocky coast about the middle of April, and begin to breed about the middle of May. On the stupendous cliffs of Dover, and such places, they deposit their single egg, in the holes and crevices; in other places they burrow like rabbits, if the soil is light; but more frequently take possession of rabbit-burrows, and lay their egg many feet under ground. This is the case on Priestholm Isle off the coast of Anglesea, and other small islands off St. David's, where the soil is sandy.

*I am much disposed to question the fact of the Coulterneb's ever dispossessing rabbits, much less of killing and devouring their young, of which it is also accused; and it would require more authentic testimony than I have yet met with to convince me of this alleged robbery; the only apparent evidence being that they are found burrowing *along with* rabbits in similar holes. We might, on the same sort of evidence, bring a charge against a troop of ducks for robbing a family of geese of a pond, because both parties were seen swimming in it. I have very commonly found, in the same sand-bank, numerous perforations crowded into a small space, the work of various species of solitary bees (*Anthophora*, *Halictus*, *Andrena*, &c.,) side by side, and intermingled with those of sand-wasps (*Sphecidæ;*) but no naturalist who has accurately observed the proceedings of these insects, would conclude that they were mutual robbers, merely because he observed them going in and out of contiguous holes.

In some instances, I am certain that the Coulterneb must form its own burrows. "In one part of this island," (Akaroe,) says Professor Hooker, "where there is a considerable quantity of rich loose mould, the Coulternebs breed in vast numbers, forming holes three or four feet below the surface, resembling rabbit-burrows, at the bottom of which they lay a single white egg, about the size of that of a lapwing, upon the bare earth. Our people dug out about twenty of these birds, which they afterwards assured me made an excellent sea-pie."[1] He elsewhere tells us that Iceland contains no indigenous quadrupeds, and he does not

[1] Hooker's Tour in Iceland.

enumerate rabbits among the animals introduced. The climate, indeed, would probably be too cold for them.

If the Coulterneb is, however, a robber of rabbit-burrows, it is too formidably armed to allow of retaliation with impunity, and few birds or beasts dare venture to attack it in its retreat. Sometimes, however, as Jacobson tells us, the raven makes bold to offer battle; but as soon as he approaches, the Coulterneb catches him under the throat with her beak, and sticks her claws into his breast till he screams out with pain and tries to get away; but the Coulterneb keeps fast hold of him and tumbles him about till both frequently fall into the sea, where the raven is drowned, and the Coulterneb returns in triumph to her nest. But should the raven, at the first onset, get hold of the Coulterneb's neck, he generally comes off victorious, kills the mother, and feasts on her eggs or her young.*[1] On St. Margaret's Island, near St. David's, we have seen the fishermen draw them out of their holes in a singular manner; by introducing the hand into the hole, which is seized by the bird, who suffers himself to be drawn out rather than loose his hold. In other places they are caught by ferrets, and the young are pickled.

About the latter end of August they retire from our coast, and have all completely migrated by the beginning of September, together with the razor-bill and guillemots.

At Dover, this, as well as the razor-bill, are indiscriminately called Willock, Coulterneb, Bouger, Mullet, Gulderhead, Bottle-nose, Pope, Marrot, and Sea-parrot. In the Orkney and Shetland Isles they are called Tamie norie, Tommy, and in the South of Scotland, Bass Cock, Ailsa Cock, Tom Noddy, and Cockandy.

The egg is white, but is occasionally found obscurely speckled with cinereous, about the size of a hen's; their principal food is small fish, particularly sprats, with which they feed their young. It is not known to what parts they retire when they leave our coast, but they have been found in abundance in various parts of the southern and northern hemisphere.

COURSER (*Cursorius Isabellinus*, Meyer.)

* Cursorius Europæus, Ind. Orn. 2. p. 751.—C. Gallicus, *Gmel.* Linn. 1. 692.—C. Isabellinus, *Temm.* Man. d'Orn. 2d Edit. p. 513.—Linn. Trans. 13. p. 187.—Pluvialis Morinellus flavescens, Corrione biondo, *Gerin.* 4. t. 474.—Le Coure vite, *Buff.* 8. 128. pl. Enl. 795.—Cream coloured Courser, Br. Zool. 1812. 2. p. 108.—Swift-foot, *Selby.*—Cream-coloured Plover, Gen. Syn. 5. p. 217. 25. *Ib.* Supp. 254. pl. 116.—*Mont.* Orn. Dict.

Length ten inches. Bill three-quarters of an inch long, in shape not unlike that of the pratincole, but longer, and dusky black; plumage

[1] Histoire Génér. des Voy. xix. p. 46; and Architecture of Birds, p. 37.

in general cream-colour, or buff, paler beneath; behind the eyes a patch of black; through them a pale streak, passing to the hind-head, and dividing the black: the first nine quills black; the rest of the wing in general, and coverts, as the black; tail cream-colour, the two middle feathers plain, the others marked with a large black spot near the ends, but occupying the inner web only on the outer feather; the ends of all nearly white; legs yellowish white; segments of the shins very distinct; claws black. This bird was killed in France, and was at that time considered singular, as it had never been met with before; it was observed to run with great swiftness. One of this curious and rare species was shot near St. Albans, in East Kent, the seat of William Hammond, Esq. on the 10th of November, 1785, who presented it to Dr. Latham. Mr. Hammond first met with it on some light land; and so little fearful was it, that having no gun with him at that time, he sent for one, which did not readily go off, having been charged for some time, and in consequence he missed his aim: the report frightened the bird away, but after making a turn or two, it again settled within one hundred yards of him, when he was prepared with a second shot, which killed it. He observed it to run with incredible swiftness, considering its size; and at intervals to pick something from the ground, and was so bold as to render it difficult to make it rise in order to take a more secure aim on the wing. The note was unlike that of any known bird. Colonel Montagu says that one of these was shot in North Wales in the year 1793, and preserved in the collection of the late Professor Sibthorp, at Oxford. Mr. Atkinson, author of the "Compendium of Ornithology," was also in possession of a specimen, shot at Netherby, in April, 1816.*

CRACKER.—A name for the Pintail Duck.

CRANE (*Grus cinerea*, Bechstein.)

Ardea grus, *Linn.* Syst. 1. p. 234. 4.—*Gmel.* Syst. 2. p. 620.—*Briss.* 5. p. 374. 6. t. 33.—*Ib.* 8vo. 2. p. 307.—*Raii*, Syn. p. 95. A. 1.—*Will.* p. 200. t. 48.—Ind. Orn. 2. p. 674. 5.—La grue, *Buff.* 7. p. 287. t. 14.—*Temm.* Man. d'Orn. 2. p. 557.—Common Crane, Br. Zool. 2. App. p. 534. t. 6.—Arct. Zool. 2. p. 453.—*Will.* (Angl.) p. 274. t. 48.—*Albin*, 2. t. 65.—*Lath.* Syn. 5. p. 40. 5.—*Lewin's* Br. Birds, 4. t. 143.—*Walc.* Syn. 2. t. 124.

This species weighs near ten pounds; length five feet. The bill is above four inches long, of a greenish black; the forehead is covered with black down, or hairs; the hind part of the head bare and red, with a few scattered hairs; on the nape is a bare place ash-coloured; the sides of the head and hind part of the neck white; between the bill and eyes, beneath them, and the fore part of the neck, blackish ash-colour; the lower part of the neck, and the rest of the body, fine ash-colour, darkest on the tail coverts; the quill-feathers and greater coverts black;

bastard wing the same; from the pinion of each wing, nearest the body, springs a large tuft of unwebbed feathers, curled at the ends, which can be erected at will, but most frequently hang over and cover the tail.

There seems no doubt that this bird was by no means uncommon formerly in our fens; but only one or two instances are recorded by our later writers of its having been killed in this kingdom.

It is common in many parts of the European continent and Asia, migrating with the season. It breeds in the more northern parts. It is said to fly remarkably high in its passage, even out of sight; but that their passing is known by the noise they make, which is louder than any other bird: this is attributed to the formation of the windpipe, which is of a very singular structure: it enters the keel of the sternum, or breast bone, which is formed with a large cavity to receive it; from thence it returns, after being twice reflected.

This bird is said to make its nest in the marshes, and to lay two bluish eggs. * A few years ago a small flock appeared, during harvest time, at Dingwall, in Zetland, one of which was shot: they were observed to feed on corn, a very unusual food for such birds.

"Merret, in his Pinax," says Fleming, "notices this species among his English animals, without a remark. Willughby (Orn. 200) states that they frequently visit this country, and that numerous flocks, during summer, haunt the fens of Lincoln and Cambridge, but he had not evidence of their breeding there. Ray, however, when referring to the same bird, states their visits as occurring in the winter season (Syn. Av. 95.) As this bird breeds in more northern regions, its visits here must either be in the course of its polar or equatorial migrations, *i. e.* in spring and autumn, or during winter. Lesley (De Origine Moribus et Rebus Gestis Scotorum, p. 25) speaks of Cranes as common (*Grues plurimi*) in Scotland; and Sibbald (Scot. Ill.) adds, that they sometimes visit Orkney. In more modern times, the visits of this species have been rare indeed. Pennant mentions a single instance of an individual shot near Cambridge (Brit. Zool. ii. 629.)" *

CRANK BIRD (*Picus minor*, Linnæus.)

* Picus minor, *Linn.* Syst. 1. p. 176. 19.—Faun. Suec. No. 102.—*Gmel.* Syst. 1. p. 493. sp. 19.—*Lath.* Ind. Orn. 1. p. 229. sp. 15.—Picus varius minor, *Briss.* 4. p. 41. 15.—Picus varius tertius, *Raii*, Syn. p. 43. 6.—*Will.* p. 94. t. 21.—Le Petit Epeiche, *Buff.* Ois. 7. p. 62.—*Ib.* pl. Enl. 598. f. 1. and 2.—Pic Epeichette, *Temm.* Man. d'Orn. 1. p. 399.—Grass-pecht, *Bechst.* Naturg. Deut. 2. p. 1039.—*Meyer*, Tasschenb. Deut. 1. p. 124.—*Frisch*, Vög. t. 37. male and female.—Lesser-spotted Woodpecker, Br. Zool. 1. No, 87. t. 37.—Arct. Zool. 2. p. 278. E.—*Lewin's* Br. Birds, t. 49.—*Lath.* Syn. 2. p. 566. 14.—*Ib.* Supp. p. 107.—*Mont.* Orn. Dict.—*Ib.* Supp.—*Walc.* Syn. 1. t. 50.—*Pult.* Cat. Dorset. p. 6.—*Bewick's* Br. Birds, 1. p. 120.—*Don.* Br. Birds, 2. t. 36.—*Shaw's* Zool. 9. p. 166. t. 34. bad figure of male.—Middle-spotted Woodpecker, *Penn. Lath. Mont.*—*Selby*, pl. 38. fig. 3. p. 107.

Provincial.—Hickwall.

" This small species of Woodpecker," says Selby, " is less numerous than the others, and seems to be only partially distributed. I have met with it in Herefordshire, and it is well known in the neighbouring counties of Gloucester and Wilts. In the northern and eastern parts of England it is very rare: and, although said by Temminck to resort particularly to forests of fir-trees, I have not been able to trace it in those districts of Scotland where woods of that description abound. In habits it resembles its congeners, obtaining its food in the same manner, which consists of the smaller insects; its note is also similar, but not so loud. It breeds either in the natural hole of some tree, or in one of its own excavation, the orifice of which is always correspondent with the small size of the bird, and the passage is often of some depth; the eggs are laid on the rotten wood, without any fabricated nest; they are of a clear pinkish-white, and amount to five or six." * The weight of this species is not quite five drams; length five inches and a half; the bill is lead-coloured; irides red-brown; forehead, breast, and belly, dirty white; the cheeks and sides of the neck, white, bounded by black above and below; crown of the head crimson, bounded on each side with black, which, joining behind, runs down in a peak on the back of the neck; the back and scapulars are barred with black and white; the quill-feathers, and some of the larger coverts, are black, spotted with white; the lesser coverts wholly black; the four middle feathers of the tail are black, the rest more or less white at the ends, spotted with black; the outer one almost white; legs lead colour.

The female resembles the other sex in plumage, except on the crown of the head, which is white where the male is red; neither sex have any red at the vent.

The male sometimes has a few dusky streaks on the sides of the breast, and young male birds possess the red on the head before they leave their nest; a circumstance not usual in birds that have such vivid colours.

This is by much the scarcest species; it possesses all the habits of the preceding; the note is also the same, but not so strong.

The eggs are white, and weigh about thirty-three grains, five of which we took out of a decayed tree, deposited on the rotten wood, without any nest, and at a considerable distance below the entrance. The aperture corresponded with the size of the bird, but did not appear recently made. It is probable, however, it is able to perform this work for itself; and instinct points out the insecurity in making choice of a larger opening to their place of incubation, as they would then be liable

to be dislodged by the larger species, the daw and the stare. We have received it from Gloucestershire by the names of Hickwall and Crank-bird; have also seen it in Wiltshire, where we took its eggs.

CRAW.—A part of the stomach of birds.

CREAM-COLOURED PLOVER.—A name for the Courser (*Cursorius Isabellinus.*)

CREEPER (*Certhia familiaris*, LINNÆUS.)

*Certhia familiaris, *Linn.* Syst. 1. p. 184. 1.—*Gmel.* Syst. 1. p. 469. sp. 1.—*Lath.* Ind. Orn. 1. p. 280.—Certhia, *Raii*, Syn. p. 47. A. 5.—*Will.* p. 100. t. 23.—*Briss.* p. 603. 1.—*Ib.* 8vo. 2. p. 2.—Le Grimpereau, *Buff.* Ois. 5. p. 581. t. 21. f. 1.—*Ib.* pl. Enl. 681. f. 1.—*Temm.* Man. d'Orn. 1. p. 410—Gemeine Baumlaufer, *Bechst.* Naturg. Deut. 2. p. 1085.—*Meyer*, Tasschenb. Deut. 1. p. 130. *Frisch*, Vög. t. 39. f. 1. and 2.—Common Creeper, Br. Zool. 1. No. 92. t. 39.—Arct. Zool. 2. No. 174.—*Lewin's* Br. Birds, 2. t. 55.—*Albin*, 3. t. 25.—*Lath.* Syn. 2. p. 701.—*Ib.* Supp. p. 126.—*Mont.* Orn. Dict. 1.—*Bewick's* Br. Birds, 1. p. 125.—*Pult.* Cat. Dorset. p. 5.—*Walc.* Syn. 1. t. 54.—*Shaw's* Zool. 8. p. 186.—*Selby*, pl. 39. p. 116.*

Provincial.—Tree-creeper. Tree-climber.

This is the only species of the genus in England; its weight about two drams; length five inches; bill half an inch long, slender and curved; irides hazel.

The upper part of the head and neck are prettily marked with streaks of black and yellow brown; above each eye is a stroke of white; back, rump, and scapulars, inclining to tawny; quills dusky, mostly tipped and edged with white, or very light brown; the coverts are varied with dusky brown and yellowish white, the last of which forms a sort of bar across the wing; the breast and belly are of a silvery white; the tail consists of twelve sharp-pointed stiff feathers, of a tawny brown.

Some authors have described this bird as possessing only ten feathers in the tail, which is a mistake.

This bird is perpetually climbing up the body and limbs of trees in search of insects, its only food.

It makes a nest in some hole, or behind the bark of some decayed tree, composed of dry grass and the inner bark of wood, loosely put together, and lined with small feathers. The eggs are from six to eight in number, (not twenty as some assert,) weight about eighteen grains; these are white, minutely speckled with bright rust-colour. During the time of incubation the female is fed by the other sex, whenever she quits her nest in search of food. The note of the Creeper is monotonous and weak, several times repeated in a deliberate manner; but is rarely heard in winter. At this season it is constantly active in search of food, which is chiefly the *larvæ* of insects, found under moss, and in the crevices of the bark; which it procures in sufficient abundance to subsist it during that season.

CRESHAWK.—A name for the Kestril.

CRESTED CORMORANT.—A name for the Crested Shag.

CRESTED SHAG (*Phalacrocorax cristatus*, Cuvier.)

* Pelecanus cristatus, Faun. Grönl. No. 58.—Brun. No. 123.—Carbo cristatus, *Temm.* 2. p. 900.—Procellaria cristatus, *Mull.* Zool. Dan. Prodr. No. 150.—Crested Shag, *Penn.* Arct. Zool. 583. A.—*Mont.* Dict. and Supp.—*Flem.* Br. Anim. p. 118.

Tail short, rounded, of twelve feathers; length, from the tip of the bill to the feathers on the front, two inches and a third. Length twenty-eight; breadth forty-two inches; weight about four pounds; bill brown; irides green; feet black; general plumage deep green, with a tinge of bronze on the back and wings; each feather with a dark margin; on the crown is a tuft of feathers, upwards of an inch long, which it can erect with pleasure. Nape with a crest of ten or twelve long subulate feathers, the wings reaching to the base of the tail. In winter the coronal tuft disappears. Nest and eggs like the shag; the young are distinguished by their slender bill and short tail. It was erroneously supposed by Montagu to be only a variety of the common shag, from each having twelve tail feathers.

The Crested Shag has been considered as distinct by several of the northern naturalists. Müller and Fabricius have described it; and Mr. Pennant first introduced it into the catalogue of British birds. Fabricius has considered this bird, when destitute of the crest, as the young of the cormorant.

In Bullock's Museum there were two Crested Shags, said to be the two sexes. An engraving of one was sent to us by Mr. Bullock, on which was the following note: "Killed by me on the Bass Island, 9th of May, 1807, a female, and breeding at the time."

This bird had the feathers on the back of the head a little loose, elongated, and pendant; and on the crown was a tuft of erect feathers. It had no white about the face, nor on the thigh, as in the crested variety of the cormorant; nor fourteen feathers in the tail, the leading character of that bird in every variety.*

CRESTED GREBE.—A name for the Gaunt.

CRESTED TIT (*Parus cristatus*, Aldrovand.)

* Parus cristatus, *Linn.* Syst. 1. p 340. 2.—*Gmel.* Syst 1. p. 1005.—*Raii*, Syn. p. 74. 6.—*Will.* p. 175. t. 43.—*Lath.* Ind. Orn. 2. p. 567. sp. 14.—Le Mesange huppé, *Buff.* Ois. 5. p. 447.—*Ib.* pl. Enl. 502. f. 2.—*Temm.* Man. d'Orn. 1. p. 290.—Haubenmeise, *Bechst.* Naturg. Deut. 3. p. 869.—*Meyer*, Tasschenb. Deut. 1. p. 270.—*Frisch*, Vög. t. 14. f. 1. B.—Crested Titmouse, Arct. Zool. 2. p. 427. F.—*Will.* (Angl.) p. 242. t. 43.—*Lath.* Syn. 4. p. 545. 12.—*Albin*, 2. t. 57.—*Mont.* Orn. Dict.—*Ib.* Supp.—*Don.* Br. Birds, 2. t. 26.—*Walc.* Syn. 2. t. 250.—*Shaw's* Zool. 10. p. 64.—*Flem.* Br. Anim.—*Selby*, pl. 43. fig. 6. p. 235.*

The weight of this species is about two drams and a half; length four inches and three quarters. The bill is dusky; irides hazel; fore-

head and crown white, prettily undulated with black lines; on the hind head the feathers are very long and black, which the bird erects in form of a conic crest; cheeks dirty white, spotted with black; a black stroke crosses the cheek under the eye, which turns back in an acute angle under the ear, forming the letter V; behind that is a bed of white, surrounding the cheeks, and bounded externally by a black edge, which forms a peak on the hind-head, and also joins the black on the throat and chin; the back is greenish brown; breast and belly pale buff; wings and tail much like the back, but deeper coloured; legs bluish lead-colour.

The Crested Tit is a solitary retired species, inhabiting only gloomy forests, particularly those which abound with evergreens. It has not been found in South Britain, but is not uncommon amongst the large tracts of pines in the north of Scotland, particularly in the forest of Glenmoor, the property of the Duke of Gordon, from whence we have seen it. The eggs are said to be white, with small spots of red. * The nest, according to Temminck, is built in the holes of trees or rocks, and sometimes in the deserted nest of the crow or squirrel.* It is said to be found in Normandy, and in many parts between that and Sweden.

CROCKER.—A name for the Laughing Gull.

CROOKED BILL.—A name for the Avoset.

CROSSBILL (*Loxia curvirostra*, Linnæus.)

Loxia curvirostra, *Linn.* Syst. 1. p. 299. 1.—*Gmel.* Syst. 1. p. 843. sp. 1.—*Lath.* Ind. Orn. 1. p. 370. sp. 1.—*Cuv.* Reg. Anim. 1 p. 391.—Loxia, *Raii*, Syn. p. 86. A.—*Will.* p. 181. 1. 44.—*Briss.* 3. p. 299. t. 17. f. 3.—Le Bec croisé, *Buff.* Ois. 3. p. 449. t. 27. f. 2.—*Ib.* pl. Enl. 218.—Bec croisé commun, ou des Pins, *Temm.* Man. d'Orn. 1. p. 328.—Fichten Kreuzchnabe, *Bechst.* Naturg. Deut. 3. p. 4. t. 3. f. 1.—*Meyer*, Tasschenb. Deut. 1. p. 140.—*Ib.* Vög. Deut. 1. figures of different ages.—Crossbill, or Sheld Apple, Br. Zool. 1. No. 115. t. 49.—Arct. Zool. 2. No. 208.—*Will.* (Angl.) p. 248. t. 44.—*Lath.* Syn. 3. p. 106. 1.—*Lewin's* Br. Birds, 2. t. 66.—*Mont.* Orn. Dict. 1.—*Albin*, 1. t. 61.—*Walc.* Syn. 2. t. 205.—*Pult.* Cat. Dorset. p. 11.—*Bewick's* Br. Birds, 1. p. t. 130.—*Shaw's* Zool. 9. p. 231. t. 41.—*Selby*, pl. 53. p. 251.*

This species weighs about an ounce and a half; length near six inches and a half; bill strong, both mandibles convex, and crossing each other at the points, which are hooked; colour brown; eyes small; irides dusky.

The plumage of the male varies from a beautiful red to orange-colour on the head, neck, breast, back, and rump; the wing coverts rufous-brown; quills and tail dusky; vent almost white; under-tail coverts spotted dusky; tail forked; legs short; claws strong.

The females also vary somewhat in colour. In general they are of a dull olive-green on those parts where the male is red; but the

feathers on the back are mottled with dusky; the wings and tail similar to that of the male, but not so dark. We have observed that the crossing of the mandibles is not constantly on the same side.

The Crossbill is not known to breed with us, but is more or less found, amongst our fir plantations, from June to the latter end of the year, feeding on the seed, by dexterously dividing the scales of the cone, for which purpose the bill is admirably adapted. It is sometimes found in our orchards in autumn, and will readily divide an apple to get at the kernels. In the year 1791 we were informed, by a bird-catcher at Bath, that he had taken a hundred pairs in the months of June and July: the greater part were males, which were generally sold for five shillings each. Many are taken with a call-bird and bird-lime; others are caught by a horse-hair noose fixed to a long fishing-rod. So intent are these birds when picking out the seeds of the cone, that they will suffer themselves to be taken by the noose being put over the head. They are discovered by the twittering noise they make while feeding.

"The visits," says Selby, "of this curious and interesting species to our shores, are at irregular periods, sometimes at an interval of many years. During the summer of 1821 this kingdom was visited by immense flocks of these birds, that spread themselves through the country, and were to be seen in all woods and plantations where the fir-tree was abundant. Their first appearance was early in June, and the greater part of the flocks seemed to consist of females, and the young of the year, (the males possessing the red plumage, assumed from the first moult to the end of that year.) Many of the females that I killed shewed plainly, from the denuded state of their breasts, that they had been engaged in incubation some time previous to their arrival: which circumstance agrees with the account given of the early period at which they breed in the higher latitudes. They continued with us till towards the autumn, but kept moving northward, as I found them, in September, particularly abundant in all the fir tracts of Scotland, after they had nearly disappeared to the southward of the river Tweed. Since that time we seem not to have been visited by these birds; at least none have come under my observation. In the southern parts of the kingdom, during their occasional visits, they commit great havoc in the apple and pear orchards, by splitting the fruit in halves for the sake of the inclosed pips."

"That rare bird, the Crossbill," says Mr. Knapp, "occasionally visits the orchards in our neighbourhood, coming in little parties to feed on the seeds of the apple, and, seldom as it appears, it is always

noticed by the mischief it does to the fruit, cutting it asunder with its well-constructed mandibles, in order to obtain the kernels. A native of those extensive pine forests in the neighbourhood of the Rhine, it makes excursions into various parts of Europe in search of change of food; and though several instances are recorded of its visits to our island, I know but one mentioned of its having bred in England. A pair was brought to me very early in August, and the breast of the female being nearly bare of feathers, as is observed in sitting birds, it is very probable that she had a nest in the neighbourhood."[1]

CROW (*Corvus corone*, LINNÆUS.)

Corvus corone, *Linn.* Syst. 1. p. 155. 3.—*Gmel.* Syst. 1. p. 365. sp. 3.—*Lath.* Ind. Orn. 1. 151. sp. 4.—*Wils.* Amer. Orn. 4. p. 79. pl. 35. f. 3.—Cornix, *Raii*, Syn. p. 39. A. 2.—*Will.* p. 83.—La corneille noir ou Corbine, *Buff.* Ois. 3. p. 45. t. 5.—*Ib.* pl. Enl. 483.—Corneille Noir, *Temm.* Man. d'Orn. 1. p. 108.—Krahen Rabe, *Bechst.* Naturg. Deut. 2. p. 117.—*Meyer*, Tasschenb. Deut. 1. p. 94.—Carrion Crow, Br. Zool. 1. No. 75. t. 34.—Arct. Zool. 2. No. 135.—*Lewin's* Br. Birds, 1. t. 34.—*White's* Hist. Selb. p. 97.—*Will.* (Angl.) p. 122. t. 18.—*Lath.* Syn. 1. p. 370. 3.—*Pult.* Cat. Dorset. p. 4.—*Mont.* Orn. Dict.—*Ib.* Supp.—*Bewick's* Br. Birds, 1.—*Low's* Faun. Orcad.—*Shaw's* Zool. 7. p. 345.—*Selby*, pl. 28. p. 69.

Provincial.—Black Neb. Corby Crow. Flesh Crow. Gor Crow. Midden Crow.*

This species weighs about nineteen ounces; length eighteen inches; bill black; irides dusky. The whole plumage black, glossed above with a purplish blue; legs black.

Distinguished from the rook by the bill, which is rather more convex towards the end, and the nares, or reflected bristles, at the base being always perfect; but these are only obvious in adults. In young birds the note is the only criterion of distinction, which in this is much more hoarse than that of the rook.

The Crow feeds on flesh, insects, and grain; but is particularly fond of carrion. It frequently attacks the eyes of dying animals, and destroys weakly lambs; it will also pursue birds on wing, when pressed by hunger. We once saw this bird in pursuit of a pigeon, at which it made several pounces, like a hawk; but the pigeon escaped, by flying in at the door of a house. We have also seen it strike a pigeon dead from the top of a barn. It is a great destroyer of young game and poultry.

It is a bold bird, always at war with the lesser species of hawks; nor does the kite, the buzzard, or the raven, approach its nest without being attacked and driven away. At that season, even the peregrine falcon is insulted, who frequently at one pounce brings it to the ground.

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[1] Journal of a Naturalist.

These birds keep in pairs all the year; seldom congregate but to regale on some carcase, or in winter to roost; will frequently hide their food till hunger is more pressing. The nest is generally placed in the forked branch of a tree; is composed of sticks plastered with earth, on which are laid various soft materials, such as wool and hair.

* M. Montbeillard, I think, must be mistaken in the nest he describes as that of the Carrion Crow, which was found, he tells us, in an oak eight feet high, in a wood planted on a little hill where were other oaks larger, and formed on the outside with small branches and thorns rudely interwoven, plastered with earth and horse-dung, and the inside carefully "lined with fibrous roots."[1] At least all the Crows' nests which I have examined, have been lined with a bedding of wool, the hair of rabbits, and other soft materials of a similar kind.*[2]

The eggs are four or five in number, of a greenish colour, spotted with dusky and ash-colour, their weight about five drams. * Colonel Montagu observed two crows by the sea-shore, busy in removing small fish beyond the flux of the flowing tide, and depositing them just above high-water mark, under the broken rocks, after having satisfied the calls of hunger. This species, like the magpie, is extremely garrulous at the sight of a fox, or other small quadrupeds, and attacks and makes prey of a half-grown hare. In a summer evening ramble, Colonel Montagu saw one of these birds make repeated pounces at some animal in a field where the grass was nearly a foot high, which appeared to raise itself on its hind legs and defend itself stoutly; upon a nearer approach he discovered it to be a young hare.*

CUCKOO.—(*Cuculus canorus*, Linnæus.)

* Cuculus canorus, *Linn.* Syst. 1. p. 168. 1.—*Gmel.* Syst. 1. p. 409. sp. 1.—*Raii*, Syn. p. 23.—*Will.* p. 6. t. 10. 27.—*Briss.* 4. p. 105. 1.—*Lath.* Ind. Orn. 1. p. 207. 1.—Cuculus hepaticus, *Lath.* Ind. Orn. 1. p. 215. sp. 25.—Le Coucou gris, *Buff.* Ois. 6. p. 305.—*Ib.* pl. Enl. 811.—Le Vaill. Ois. d'Afric. 5. pl. 202. and 200.—*Temm.* Man. d'Orn. 1. p. 382.—Asch-Grauer oder gemeine Kukuk, *Bechst.* Naturg. Deut. 2. p. 1120.—*Meyer*, Tasschenb. Deut. 1. p. 110.—*Frisch*, Vög. t. 40.—Cuculus canorus rufus, *Gmel.* Syst. 1. p. 409. sp. 1. var. B.—*Lath.* Ind. Orn. 1. p. 208. var. B.—Common Cuckoo, Br. Zool. 1. No. 82. pl. 36.—Arct. Zool. 2. p. 266. A.—*Lewin's* Br. Birds, t. 42.—*Haye's* Br. Birds, t. 17. 18.—*Lath.* Syn. 2. p. 509. 1.—*Ib.* Supp. p. 98.—*Mont.* Orn. Dict.—*Ib.* Supp.—*Bewick's* Br. Birds, p. 108.—*Shaw's* Zool. 9. p. 68.—*Selby*, pl. 37. and pl. 45. fig. 1.

Provincial.—Gowk.*

The common Cuckoo is the only British species: its weight is about four ounces and a half; length fourteen inches. The bill is black, yellowish at the base of the under mandible; inside of the mouth red; irides yellow; the head and whole upper part of the bird dark ash-

[1] Oiseaux, Art. La Corbine.

[2] Architecture of Birds, p. 216.

colour; throat, under side of the neck, and upper breast, of a pale ash-colour; the latter in some inclining to rufous brown; the lower breast and belly white, marked with transverse undulating black lines; the quill feathers dusky; the inner webs barred with oval white spots; the tail consists of ten feathers, of unequal length; the two middle ones black, dashed with ash-colour, and tipped with white; the rest black, marked with white spots on each side of the shaft; in some the lateral feathers have white spots only on their interior webs, but are all tipped with white.

The female is rather less, and in general differs from the other sex in the neck and breast being of a tawnyish brown, barred with dusky, and the coverts of the wings marked with light ferruginous spots; the markings on the tail and quill-feathers much like the male, only the edges of the spots are inclining to reddish brown; the legs of both sexes short and yellow. The outer-tail feather and the first quill-feather are remarkably short.

We believe this bird does not entirely throw off its nestling feathers till the second year's moulting; for in three specimens before us, killed the same season, (two males and a female,) the thirteenth and three succeeding quill-feathers, and the three greater coverts impending them, are barred with brown and ferruginous. *But as the young of the Cuckoo differs so materially in the first year's plumage from the adult, it may not be improper to give a description, for the information of those who may wish to know the distinction. The irides are greyish; the whole upper part of the plumage is a mixture of dusky black and ferruginous, in transverse bars, except the forehead and a patch on the back of the head, which in this specimen is white, and the tips of the scapulars pale: the feathers of the whole under parts are sullied white, with distant transverse bars of dusky black. In general each feather possesses two or three bars: the sides of the neck and breast tinged with rufous; the lateral feathers of the tail, and the inner webs of the quills, more or less barred with white; the coverts of the tail, which, as well as those on the rump, are unusually long, dashed with cinereous, and slightly tipped with white.

The young Cuckoo, on account of its reddish brown plumage, has by some naturalists been ranked as a distinct species, under the name of the Red Cuckoo (*C. rufus*, Brisson.) But there can be no doubt of the mistake.

M. Payrandeau states distinctly, on the authority of a series of specimens, as well as of repeated dissection, that both the male and female young of the common Cuckoo, before the first moult, have the

same colour; that, after the first moult, the males have a deep olive ash-colour, and the red spots on the male disappear altogether; while in the female they continue to the most advanced age, when it puts on the plumage of an old male, of which change M. Payrandeau possesses a specimen.[1] Vieillot, the father of French ornithologists, as well as Meyer, Jules Delamothe, and Baillon of Abbeville, agree in the same opinion. M. Temminck, and Dr. Latham, in his last work, regard the Red Cuckoo as the young of the common species of one year old.*[2]

This bird comes to us early in the spring, and almost invariably leaves us by the first of July: the females may sometimes remain somewhat later, not having deposited all their eggs. We have killed this sex as late as the twenty-sixth of June, from which we took a matured egg, which weighed forty-four grains; the colour white, sprinkled with two shades of ash-coloured spots, mostly at the larger end. The male generally comes to us earlier than the female: their food is chiefly insects, particularly caterpillars, or the *larvæ* of all kinds of lepidopterous insects, and not the smooth sorts only, as some have imagined; for we have found the stomach of this bird lined with the hairs of the rough ones more than once.

*A young Cuckoo, brought to Colonel Montagu in the month of July, just as it could fly, was, by great care, kept alive till the fourteenth of December. It had, during that time, two or three attacks of dysentery, from which it recovered by having chalk and ginger given to it; and during the time it lived, no change was observed to have taken place in its plumage. For two months after this bird was caught it never attempted to feed itself by picking; and even to the last moment seemed to prefer being fed by the hand of its mistress, rather than have the trouble of picking up its food, of which it was extremely choice. Nothing appeared to be acceptable as a substitute for insects except raw beef. Flies it would eagerly devour; but its most delicious morsel was any species of hairy caterpillar; these it seized with avidity, shook them to death, and softened by passing several times through the bill, till they were perfectly pliant, when it would swallow whole the largest of the caterpillar of the egger, or drinker moths.

Of strangers it was extremely fearful, fluttering in its cage to avoid their attentions; but it would quietly suffer itself to be handled and caressed by a young lady, who had been its kind benefactress, appearing to like the warmth of her hand to its feet.

The feet of the Cuckoo, like those of the woodpecker, appear to be

[1] Bulletin des Sciences Nat. for 1828. [2] Architecture of Birds, p. 359.

formed for climbing; but it was evident that this bird had no such power, although the disposition of the toes gave it a very powerful grasp.*

It has long been a received opinion that the Cuckoo deposited its egg in the nest of some other bird; that it never sat on its own egg, but left it to be incubated by the bird in whose nest it was deposited; that it seldom laid more than one egg, because that number is most commonly found in a nest; and that as no other young but that of the Cuckoo is found in a nest, it was imagined that the old Cuckoo either destroyed the eggs or young of the bird whose nest it dropped its own egg into.

In this state had the natural history of the Cuckoo remained, till the ingenious Dr. Jenner illustrated it in a letter to Mr. John Hunter, published in the Philosophical Transactions. To the light this gentleman has thrown on the subject, every naturalist must feel himself obliged. But knowledge, arriving by slow degrees, and the fallibility of human power being certain, will, we hope, plead an excuse for further attempting to elucidate the history of that singular bird. The opinion of different persons coinciding cannot fail to strengthen an assertion; and we are happy to declare, from personal experience, that we agree with that gentleman in respect to the incubation and nutrition of the Cuckoo, and the phenomenon of the infant bird throwing the eggs or young of the foster parent out of the nest; and only differ somewhat in respect to the parturition of that and other birds. It must be understood we do not mean to contradict that author absolutely in any point, but only to offer such ideas to the friends of science as may further stimulate to a more minute investigation. Many years ago a Cuckoo's egg was brought to me, taken out of a reed sparrow's nest; I immediately put it into the nest of a swallow, in an out-building, who had just begun to sit. On visiting it, about the time I expected the exclusion of the young, I was surprised to find the young Cuckoo sole possessor of the nest. This and similar instances convinced me that the eggs of the foster parent could not be destroyed by the old Cuckoo. It was difficult to suggest what became of the bird's eggs in whose nest the Cuckoo chose to deposit hers. It was unnatural to suppose the bird would throw out or destroy its own in preference to that of the intruder; and the circumstance of young Cuckoos never being found with companions in the nest, could not admit of a supposition that they were destroyed by accident. In this very unenlightened state, then, was the history of this bird, till Dr. Jenner proved, by a variety of experiments, exhibited under his own inspection, the extraordinary circumstance of the young Cuckoo's turning out its nestling

mates or the eggs. But, notwithstanding this undoubted authority, many incredulous persons, to our knowledge, disbelieve the possibility of the facts related. Too apt are some persons to wonder at and disbelieve any thing seemingly out of the ordinary course of nature; whereas it should only excite our admiration. That Being, who alone can give animation, can most assuredly endow it with what powers and properties seem best to his unerring wisdom. To disallow things because our contracted comprehensions and confined ideas are limited within so small a compass, savours of atheism. It is more than probable the all-wise Creator of all things never intended we should penetrate into the reasons for all his actions; and shall we, mortals of fallible nature, deny well-attested facts because we are not able to see into the wisdom of an infallible Being?

But to return to the Cuckoo.—Previous to the above-mentioned publication, I had taken much pains towards investigating the several phenomena I had noticed in this bird, and was so fortunate as to have ocular proof of the fact, related by Dr. Jenner, of a young Cuckoo turning out of a hedge-sparrow's nest a young swallow I had put in for the purpose of experiment. It is needless to recite all the circumstances attending this extraordinary bird, as that gentleman has so amply explained it; I shall, therefore, only add that I first saw it when a few days old in the hedge-sparrow's nest, in a garden close to a cottage, the owner of which assured me the hedge-sparrow had four eggs when the Cuckoo dropped in a fifth; that on the morning the young Cuckoo was hatched, two young hedge-sparrows were also excluded; and that, on his return from work in the evening, nothing was left in the nest but the Cuckoo. At five or six days old, I took it to my house, where I frequently saw it throw out the young swallow for four or five days after. This singular action was performed by insinuating itself under the swallow, and, with its rump, forcing it out of the nest with a sort of jerk. Sometimes, indeed, it failed, after much struggling, by reason of the strength of the swallow, which was nearly full feathered; but, after a small respite from the seeming fatigue, it renewed its efforts, and seemed continually restless till it succeeded. At the end of the fifth day this disposition ceased, and it suffered the swallow to remain in the nest unmolested.

In respect to the Cuckoo being able to continue laying from the production of the first egg till she leaves us, we are doubtful, that is, in regular succession; but we suspect, contrary to all other birds, it has the property of retaining its egg, of which we shall speak hereafter. It is possible some may lay two lots of eggs during their stay with us; but then we have reason to believe there is a considerable space of time

between the first and second lot. In two or three females, dissected at the time they first began to lay, we could only discover four or five eggs that could possibly be laid successively; from the smallest of which to what may be termed the secondary eggs, there was a sudden break off, not a gradual decrease in size. Now if this bird was able to continue laying for a month or six weeks together daily, all the eggs to be protruded in that time would appear in regular gradation. If any bird is killed at the time of laying the first egg, the number of eggs destined to be excluded successively may be pretty easily ascertained; and we are confident no bird we are yet acquainted with, the Cuckoo excepted, has the power of keeping back its eggs after it has received the stimulus of the male fecundity; and after the first egg is laid, the others must successively follow, one after the other, each in twenty-four hours, with a few exceptions in the larger undomesticated birds; and we know the force of nature is often sufficiently powerful to separate eggs from the *ovarium* without male contact; for pullets often lay eggs in a coop without impregnation, and small birds often in cages, many instances of which we have seen. These are of course unprolific. Cuckoos, on the contrary, we conceive, are capable of retaining their egg after it is arrived at maturity; and we think there is much reason for supposing this bird is endowed with so extraordinary a property, considering it makes no nest, and that it is obliged to seek the nest of another bird to deposit it in, and that nest fit to receive it, into which one egg only is dropped,[1] and other nests to seek for the like purpose, it becomes not only a work of labour, but of hazard and uncertainty; therefore, did it not possess such qualification, we should conceive the difficulties it had to encounter were too numerous to ensure a continuation of its species. Suppose this bird was obliged, like others, to lay its eggs successively day after day, which we believe to be five or six, it is hardly probable that five or six nests should be found in a state proper to receive them, much less if she laid a greater number, as has been suggested.

We think it reasonable to conceive, the female Cuckoo receives the male's embraces from a certain period after her arrival till she is near laying her first egg, and that she does not admit the male again till after she has laid her usual number. If she has been fortunate in discovering such nests as answer her purpose, and have laid all her first forwarded eggs early in the season, then, after a short interval, it is possible nature may stimulate again, and a second lot of eggs be produced; so that, in either case, Cuckoos may lay eggs about the time

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[1] Where two have been found in one nest they certainly were laid by different birds.

they depart from us; but we cannot help doubting, whether more than one lot of eggs is laid during its continuation in this country; and that alone may be a work of time, for the reasons before mentioned.

If a Cuckoo continued laying each day successively, from the time of her excluding the first egg till near the time of migrating, surely a greater number of eggs or young of that bird would be found, especially as they are so dispersed; but, on the contrary, although we have been anxious to procure the eggs or young for several years together, we have not been able to succeed; yet the old birds have been in plenty about us.

* Should there be no mistake in the fact of the Cuckoo's egg having been found in the nests of wrens, it may well excite a question in what manner it was introduced; for the entrance of any of these little nests being in the side, and not more than an inch or an inch and a half in diameter either way, it is obviously impossible so large a bird as the Cuckoo could get into the nest, which is barely wide enough to admit the wren herself. But even if we reject (though we have no good reason to do so) the evidence of M. Montbeillard with respect to the wrens, we cannot refuse to believe the accuracy of Dr. Jenner, who found a Cuckoo's egg in the nest of a wagtail in a hole under the eave of a cottage; though I think this was rather a singular place for a wagtail to build. Nay even leaving these domed nests with a narrow entrance out of the question, and taking the nests most usually chosen by the Cuckoo for her progeny, we must conclude that she cannot in many instances sit upon the nest while depositing her egg. She may indeed, in many instances, manage this in the nests of the larks; and in the wagtail's when built as it usually is, on the ground; but the case is very different with the hedge-sparrow, the green-bird, the linnet, or the white-throat, all of whose nests are usually placed in thick thorn-bushes, or among brambles, and so closely fenced in therewith, that the school-boy can with difficulty reach in his hand (which is not one-third the size of a Cuckoo) to rob them of their eggs. From these facts, which I have not seen placed in this point of view in the works of previous naturalists, I think I am fully entitled to infer, that it is physically impossible for the Cuckoo to sit upon the nests in question, when she deposits her egg. I am sorry however that I cannot offer anything beyond conjecture as to the actual manner in which the thing is done; though Vaillant obtained pretty satisfactory evidence, that one at least of the African Cuckoos carries the egg in her bill, in order to lay it in nests having a narrow side entrance, such as that of the capocier (*Sylvia macroura*, Latham.) M. Vaillant likewise found an egg supposed to be that of another Cuckoo, which he calls edolio, (*Cuculus melanoleucos*, Tem-

MINCK,) in the nest of a capocier, and also in the nest of the red crowned warbler, (*Rousse-tête*, VAILLANT,) though the Cuckoo's egg is twice the size of the warblers. But one of the most remarkable circumstances is that though the birds which feed on grain, are more numerous in Southern Africa, and their nests more easily found, the Cuckoos never select these for depositing their eggs, but uniformly the nests of birds which feed on insects. Colonel Montagu makes a remark nearly similar with respect to our common Cuckoo, for amongst a number which he examined, he found only one with any vegetable materials in its stomach.[1]

Temminck, who seems to have studied the Cuckoos with great care, expressly says that they "live solitary, do not construct nests; the female, by some means not positively ascertained, carries the eggs which she has laid into the nests of different species of small birds." Of course he means the genuine Cuckoos, excluding the honey-guide, (*Indicator*, VIEILLOT,) and a number of others allied to the genus; but which are classed indiscriminately among them by Linnæus, Latham, and other systematic writers.[2]

In a manuscript of Derham's on instinct, communicated by Pennant to Daines Barrington, it is stated that "the Rev. Mr. Stafford was walking in Glossop Dale, in the Peak of Derbyshire, and saw a cuckoo rise from its nest, which was on the stump of a tree that had been some time felled, so as much to resemble the colour of the bird. In this nest were two young Cuckoos, one of which he fastened to the ground by means of a peg and line, and very frequently, for many days, beheld the old Cuckoo feed there her young ones."[3] From this Dr. Fleming hastily leaps to the conclusion, that, "in some cases, the Cuckoo constructs its own nest;" and hence he gives it as a characteristic of the species: "Nest seldom constructed by the Cuckoo itself, the eggs being generally dropped, separately, into the nests of the hedge sparrow, &c., in the temporary absence of their owner."[4] If Dr. Fleming, however, will take the trouble to peruse the following statements of Dr. Darwin and Dr. Jenner, we think he may be induced to alter his opinion:—

"The following extract," says Darwin, "of a letter from the Rev. Mr. Wilmot, of Morley, near Derby, strengthens the truth of the fact above mentioned, of the Cuckoo sometimes making a nest, and hatching her own young.

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[1] Orn. Dict. Intro. [2] Architecture of Birds, p. 379.
[3] Phil. Trans. for 1772, p. 299. [4] Br. Zool. p. 90.

"In the beginning of July, 1792, I was attending some labourers on my farm, when one of them said to me, 'There is a bird's nest upon one of coal-slack hills: the bird is now sitting, and is exactly like a Cuckoo. They say that Cuckoos never hatch their own eggs, otherwise I should have sworn it was one.' He took me to the spot: it was in an open fallow ground. The bird was upon the nest: I stood and observed her some time, and was perfectly satisfied it was a Cuckoo. I then put my hand towards her, and she almost let me touch her before she rose from the nest, which she appeared to quit with great uneasiness, skimming over the ground in the manner that a hen partridge does when disturbed from a new-hatched brood, and went only to a thicket forty or fifty yards from the nest, and continued there as long as I stayed to observe her, which was not many minutes. In the nest, which was barely a hole scratched out of the coal-slack, in the manner of a plover's nest, I observed three eggs, but did not touch them. As I had labourers constantly at work in that field, I went thither every day, and always looked if the bird was there; but did not disturb it for seven or eight days, when I was tempted to drive it from the nest, and found *two* young ones, that appeared to have been hatched for some days, but there was no appearance of the third egg. I then mentioned this extraordinary circumstance (for such I thought it) to Mr. and Mrs. Holyoak, of Bidford Grange, Warwickshire, and to Miss M. Willes, who were on a visit at my house, and who all went to see it. Very lately I reminded Mr. Holyoak of it, who told me he had a perfect recollection of the whole; and that, considering it a curiosity, he walked to look at it several times, was perfectly satisfied as to its being a Cuckoo, and thought her more attentive to her young than any other bird he ever observed, having always found her brooding her young. In about a week after I first saw the young ones one of them was missing, and I rather suspected my ploughboys had taken it, though it might possibly have been taken by a hawk, some time when the old one was seeking food. I never found her off her nest but once, and that was the last time I saw the remaining young one, when it was almost full feathered. I then went from home for two or three days, and when I returned the young one was gone, which I take for granted had flown. Though, during this time, I frequently saw Cuckoos in the thicket I mention, I never saw the cock bird paired with this hen."[1]

Now, I cannot but think that the following remarks of Dr. Jenner leave no doubt that the nest observed by Mr. Wilmot, as well as that

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[1] Darwin's Zoonomia, i. p. 246. 3rd edit. 8vo.

seen by Mr. Stafford, belonged not to the Cuckoo, but the night-jar (*Nyctichelidon Europæus*, RENNIE.)—"With due deference," says Jenner, "to Dr. Darwin, I am inclined to think that the opinion he set forth respecting the training of Cuckoos was taken up hastily; and that the birds which his friend saw feeding their nestlings were not Cuckoos, but goat-suckers, whose mode of nestling corresponds with the relation given, and whose appearance might be mistaken for them by one not perfectly conversant with the plumage, and the general appearance of Cuckoos when on the wing."[1] Such mistakes may readily be committed, even by naturalists of experience, from the young Cuckoo being so unlike the full-grown bird. Block,[2] as well as Sanders,[3] and Sepp,[4] have mistaken the egg, and figured the large oval white marbled with brown egg of the night-jar for that of the Cuckoo, which is always small, rounded, and greenish, yellowish, bluish, or greyish white, and always blotched, not marbled, with olive or ash colour, being about the size of a house sparrow's and very like it in colour, while the night-jar's egg is larger than a blackbird's.[5] The young of the night-jar does not differ from the full-grown bird; but the Cuckoo does not attain its mature plumage till the third year; and, instead of the greyish lead blue of the old birds, is brown, with numerous spots and cross streaks of a reddish rust colour, very similar to the markings of the night-jar. The two birds, when full grown, are also precisely of the same size, namely, ten inches and a half in length.[6] The similarity, then, I think, is tolerably complete.

The assertion of Aristotle, that the Cuckoo sometimes builds among broken rocks and on high mountains,[7] and a similar remark quoted from Niphus by Gesner,[8] are no more to be trusted than his story of the redbreast being annually changed[9] into a red start; or of the Cuckoo itself being nothing but a metamorphosed sparrow-hawk, while, immediately after this miraculous change, it is so weak, that the kite is so obliging as to carry it on its back!!! So grossly are the commonest facts misrepresented, when not observed with scrupulous accuracy.*

CUCKOO'S MATE.—A name for the Wryneck.

CUCULIDÆ (LEACH.)—*Cuckoos, a group very improperly arranged under the Climbers, (*Scansores*, AUCTORES,) as Cuckoos do not climb.*

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[1] Jenner, Phil. Trans. 1824, p. 42. [2] Besc. der Berlin, Gess. iv. t. 18. fig. 1.
[3] Naturf. xiv. s. 49. [4] Sepp. Nederl. Vög. ii. p. 117.
[5] Lath. Gen. Hist. of Birds, iii. p. 261.
[6] Temm. Man. p. 382. 437. [7] Aristotle, Hist. Anim. vi. p. 1.
[8] Gesner, de Avibus, iii. [9] Pliny, Ælian, Salerne, &c.

CUCULUS (Linnæus.)—*Cuckoo, a genus thus characterised. Bill somewhat compressed, slightly curved, and as long as the head; nostrils at the base round, and margined by a naked prominent membrane; wings of mean length, the first quill-feather short, the third the longest in the wing; tail more or less wedge-shaped; feet having two toes before and two behind, the outer hind toe reversible, the fore toe joined at the base, the hind toes entirely divided; shanks short, and feathered a little below the knee.*

CUDDY.—A name for the Gallinule.

CULTRATE.—In the form of a bill-hook, or pruning-knife.

CURLEW (*Numenius arquata*, Latham.)

*Scolopax Arquata, *Linn.* Syst. 1. p. 242. *Gmel.* Syst. 2. p. 655.—Numenius Arquata, Ind. Orn. 2. p. 710. 1.—*Temm.* 2. p. 603.—*Flem.* Br. Anim. p. 101. Numenius, *Raii*, Syn. p. 103. A. 1.—*Will.* p. 216. t. 54.—*Briss.* 5. p. 311. 1.—*Ib.* 8vo. 2. p. 289.—Le Courlis, *Buff.* 8. p. 19.—Common Curlew, Br. Zool. 2. No. 276. t. 63.—*Ib.* fol. 118.—Arct. Zool. p. 462. A.—*Will.* (Angl.) p. 294. t. 54.—*Albin*, 1. t. 79.—*Lath.* Syn. 5. p. 119. 1.—*Ib.* Supp. p. 242.—*Pult.* Cat. Dorset. p. 14.—*Walc.* Syn. 2. t. 133.—*Lewin's* Br. Birds, 4. t. 153.

Provincial.—Whaup.*

This species is subject to vary considerably in size, weighing from twenty to upwards of thirty ounces; the length of the largest about twenty-five inches. The bill is from six to seven inches long, dusky black, irides hazel. The head, neck, scapulars, and coverts of the wings, pale brown, each feather black in the middle, and lightest at the edges; breast and belly white, marked with oblong black spots; lower part of the back white, with a few dusky spots; the tail and its upper coverts barred with yellowish white and black; quills black, spotted on the inner webs with white; the legs are long, of a bluish grey colour. Male and female much alike.

The Curlew is common on most parts of our coast in winter, where it feeds on small crabs and other marine insects, and worms. At this season it is gregarious.

In the spring these birds retire inland, and most commonly to the more northern parts of this kingdom, to breed. For this purpose, the most retired situation is resorted to, either on the mountains amongst the heath, or in the extensive, unfrequented marshes. We have taken the young on the mountains in Northumberland, and in the low, swampy grounds in the isle of Mull in Scotland. It makes no nest, but deposits its eggs amongst the heath, rushes, or long grass, generally four in number, of a pale olive colour, marked with brownish spots.

*The Curlew in his natural state is so remarkably shy, that he is with difficulty approached; but like other birds wholly dependent for their daily subsistence, soon becomes docile. One that was shot in the

wing, was turned amongst some aquatic birds, and was at first so extremely shy, that he was obliged to be crammed with meat for a day or two, when he began to eat worms; but as this was precarious food, he was tempted to eat bread and milk like the ruffs. To induce this substitution, worms were put into a mess of bread mixed with milk, and it was curious to observe how cautiously he avoided the mixture, by carrying every worm to the pond, and well washing it previously to swallowing. In the course of a few days this new diet did not appear unpalatable to him, and in little more than a week he became partial to it, and from being exceedingly poor and emaciated, got plump and in high health.

In the course of a month or six weeks, this bird became excessively tame, and would follow a person across the menagerie for a bit of bread, or a small fish, of which he was remarkably fond. But he became almost omnivorous; fish, water-lizards, small frogs, insects of every kind that were not too large to swallow, and (in defect of other food) barley with the ducks was not rejected.

This very great favourite was at last killed by a rat, (as it was suspected,) after a short life of two years in confinement.*

The young make use of their legs as soon as they are hatched, but cannot fly for a considerable time. * I have frequently run them down in the moors of Ayrshire, but when they acquire a little strength, they can easily outrun a man.*

CURSORIUS (Latham.)—*Courser, a genus thus characterised. Bill shorter than the head, depressed at the base, a little vaulted at the point, slightly curved, pointed; nostrils oval, surmounted by a small protuberance; legs long, slender, three toes very short, almost entirely divided, the inner toe one half shorter than the middle one; claws very small; wings of middle size, the first quill almost as long as the second, which is the longest in the wing; great wing coverts as long as the quills.*

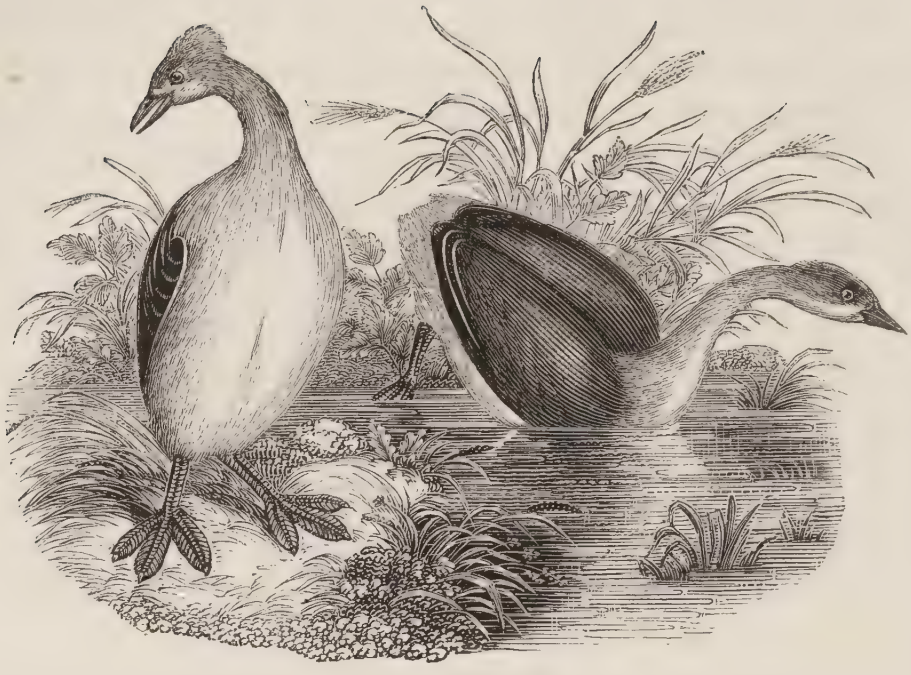
CURWILLET.—A name for the Sanderling.

CUSHAT.—A name for the Ring Dove.

CUTHBERT.—A name for the Eider Duck.

CUTTY WREN.—A name for the Wren.

CYGNET.—The young Swan.



Dabchicks.

DABCHICK (*Podiceps minor*, LATHAM.)

Colymbus cristatus, *Linn.* Syst. 1. p. 323. γ.—Colymbus minor, *Gmel.* Syst. 2. p. 591.—Colymbus Fluviatilis, *Briss.* 2. p. 374.—Colymbus Hebridicus, *Gmel.* 2. p. 594.—Podiceps minor, Ind. Orn. 2. p. 784. 9.—*Raii*, Syn. p. 125. A. 3.—*Will.* p. 258. t. 61.—Podiceps Hebridicus, *Lath.* Index, 2. p. 785. t. 79.—Yacapitzehoac, *Raii*, Syn. p. 177.—Le Grebe de la rivier ou le Castagneux, *Buff.* 8. p. 244. t. 20.—Little Grebe, Br. Zool. 2. No. 226.—*Ib.* fol. 134. t. F.—*Will.* (Angl.) p. 340. t. 61.—*Lath.* Syn. 5. p. 289. 10.—*Lewin's* Br. Birds, 5. t. 200.—Black-chin Grebe, *Mont.* Dict.—Didapper, *Walc.* Syn. 1. t. 205.—*Don.* Br. Birds, 3. t. 56.—*Penn.* Br. Zool.

Provincial.—Dipper. Dobchick. Small Doucker. Loon. Arsefoot.

The weight of this species is between six and seven ounces; length ten inches. Bill scarce an inch long, brown; irides reddish hazel. The whole upper parts are of a rusty brown; pale on the rump; cheeks light ferruginous; the fore part of the neck grey; in some the cheeks are of the same colour; breast and belly glossy white, mottled with ash-colour and light ferruginous; in some the ferruginous is wanting, especially in the females; but both sexes are subject to vary in plumage according to age; legs dark dull green.

This is the least and most plentiful species; is common in most lakes, slow rivers, small streams, and even fish-ponds. It seldom takes wing, but dives on the least alarm, and will remain under water amongst the reeds or other aquatic plants with only its bill above for respiration. Its nest is formed, like the rest of the grebes, of a prodigious quantity

of flags or other water-plants, but is generally fastened to the reeds or flags, in order to prevent its being carried away by the current. Temminck gives a similar statement. The eggs are five or six in number, of a dirty white; the shape oblong, less than those of a pigeon. These are generally covered with weeds, so that when the bird quits her nest suddenly they are not exposed to view. Notwithstanding this precaution they are frequently destroyed by the water rat.

Mr. Pennant supposes that the quantity of vegetables collected to form the nest, ferments and gives warmth to the eggs; but we never could discover the least warmth in the nest.

* All the nests with which I have been acquainted in Kent, where these birds are plentiful, have uniformly been found cold. Indeed I do not think anybody, having a knowledge of chemistry, would ever adopt the opinion that fermentation, sufficient to produce heat, could take place in contact with a large body of water. This is not less untrue, indeed, than that these nests are so constructed as to float upon the water, and accommodate themselves to variations in its level.*[1]

In large rivers these birds are frequently devoured by pike and trout while they are diving in pursuit of small fish. We once took from the stomach of the last a water rat weighing fifteen ounces; the trout weighed only four pounds. In the spring the males are very active in pursuit of the other sex, and then frequently fly along the surface of the water to a small distance: at this season they also emit a shrill chattering noise. After the breeding season, the bird is frequently seen in some of our inlets of the sea, where it is said to feed on shrimps. It is not uncommon in most parts of the old continent, and some parts of America, particularly about Hudson's Bay.

DAKERHEN.—A name for the Gallinule.

DARTFORD WARBLER (*Sylvia provincialis,* TEMMINCK.)

*Sylva provincialis, *Temm.* Man. d'Orn. 1. p. 210.—Sylvia Dartfordiensis, *Lath.* Ind. Orn. 2. p. 517. 31.—*Mont.* Trans. Linn. Soc. vol. 7. p. 280. and vol. 9. p. 191. Curruca provincialis, *Flem.* p. 70.—Motacilla provincialis, *Gmel.* Syst. 2. p. 958. 67.—Le Pitte-Chou de Provence, *Buff.* Ois. 5. p. 158.—*Ib.* pl. Enl. 655. f. 1. —Bec-fin Pitte-Chou, *Temm.* Man. d'Orn. 1. p. 211.—Dartford Warbler, Br. Zool. 1. No. 161. t. 56.—*Lath.* Syn. 4. p. 437. 27.—*Ib.* Supp. p. 181.—*Mont.* Orn. Dict.—*Ib.* Supp.—*Lewin's* Br. Birds, 3. t. 106.—*Walc.* Syn. 2. t. 237.—*Bewick's* Br. Birds, 1. 210.—*Selby,* pl. 46. fig. p. 180.*

This species is rather larger than the common wren, and much longer, by reason of its tail, which is one half its length nearly; the weight is about two drams and a half; length five inches and a half. Bill black, at the base of the upper mandible whitish; the upper mandible a little curved; irides and eyelids yellow. The whole upper parts

[1] See Plan of study in the Introduction to this Dictionary.

are of a dusky-brown; cheeks dark cinereous; throat, neck, and breast fine deep ferruginous; sides the same, but not so bright; middle of the belly white; quills dusky, slightly edged with dark cinereous on the outer webs, those next the body and coverts with dark ferruginous brown; at the bend of the wing, under the *alula spuriæ*, is a spot of white; the tail is considerably cuneiform, the outer feather is tipped with white, and edged with the same on the exterior web; the next slightly tipped with white; the remainder of these, and all the others, dusky; the middle ones edged with cinereous: legs yellowish. In some the throat is speckled with white.

The female and young birds are of a lighter colour, and more rufous.

It is called the Dartford Warbler, from having been first discovered in England near that place; it is, however, a scarce species, rarely noticed in this country. Dr. Latham seems to have been the first discoverer of this bird in England, and communicated it to Mr. Pennant, who first published it in his *British Zoology*, a pair having been killed on Bexley Heath, near Dartford, on the 10th of April, 1773. Since that time, Dr. Latham informs us, several were shot in the winter of 1783, on a common, near Wandsworth, in Surrey, now in the Leverean Museum; from which circumstance that author very justly observes, that if it is found here only as a winter migrant, he cannot reconcile the circumstance of its breeding in France, (which has been said to be the case,) as all migratory birds go northward to breed, not to a warmer climate. In the month of September, 1796, we observed many of these birds about Falmouth, in Cornwall, frequenting the furzy hills, and killed several from that time to the 24th of December, when a sudden fall of snow, that covered the ground for some time, drove them from that part. Many of these birds, on their first appearance, were in their nestling feathers, from which some hopes were entertained of their breeding in those parts; but with the most diligent search, not one was to be found the following summer; nor indeed did they ever return after the snow had driven them away.

*"My opinion," says Montagu, in the Linnæan Transactions, "that this species of warbler bred with us, was greatly strengthened, by a letter which I received from a scientific friend in Cornwall, well known in the literary world, Mr. Stackhouse, of Pendarvis, who assured me that his brother had observed these birds for several years to inhabit furze, near Truro; that last year, as well as the present, they were plentiful during the summer season; and that he had not only seen them every month in the year, but had observed young ones soon after they had left the nest, though his search for the nest and eggs had been in vain.

"This information redoubled, if possible, my ardour, and I visited a large furze common in my neighbourhood, where I had seen several the preceding autumn; and upon close search, on the 16th of July, three pairs of old birds were observed, two of which had young evidently by their extreme clamour, and by frequently appearing with food in their bills.

"On the 17th my researches were renewed, and after three hours watching the motions of another pair, I discovered the nest with three young: it was placed among the dead branches of the thickest furze, about two feet from the ground, slightly fastened between the main stems, not in a fork.

"On the same day, a pair were observed to be busied carrying materials for building: and by concealing myself in the bushes, I soon discovered the place of nidification, and upon examination found the nest was just begun. As early as the 19th the nest appeared to be finished, but it possessed only one egg on the 21st, and on the 26th it contained four, when the nest and eggs were secured.

"The nest is composed of dry vegetable stalks, particularly goose grass, mixed with the tender dead branches of furze, not sufficiently hardened to become prickly; these are put together in a very loose manner, and intermixed very sparingly with wool. In one of the nests was a single partridge's feather. The lining is equally sparing, for it consists only of a few dry stalks of some fine species of *carex*, without a single leaf of the plant, and only two or three of the panicles. This thin flimsy structure, which the eye pervades in all parts, much resembles the nest of the white-throat. The eggs are also somewhat similar to those of the white-throat, (*Curruca cinerea,*) but rather less, weighing only twenty-two grains; like the eggs of that species, they possess a slight tinge of green, and are fully speckled all over with olivaceous brown and cinereous, on a greenish-white ground; the markings becoming more dense, and forming a zone at the larger end.

"The young were considered no small treasure, and were taken as soon as the proper age arrived for rearing them by hand; which is at the time the tips of the quills and the greater coverts of the wings expose a portion of the fibrous end.

"By experience, grasshoppers (which at this season of the year are to be procured in abundance) are found to be an excellent food for all insectivorous birds; these, therefore, at first, were their constant food, and after five or six days, a mixture of bread and milk, chopped boiled meat, and a little finely powdered hemp and rape seed, made into a thick paste, were sometimes given to wean them from insect food by degrees;

this they became more partial to than even grasshoppers, but they afterwards preferred bread and milk, with pounded hemp-seed only, to every other food; the smaller house or window flies excepted.

"Before these birds left their nest, I put them into a pair of scales, and found that they weighed about two drams and a quarter each. At this time they ate, in one day, about one dram and a quarter each, so that in two days each consumed more than its own weight. Such a repletion is almost incredible, and doubtless greatly beyond what the parent birds could usually supply them with, which by observation appeared to consist of variety, and not unfrequently small moths (*Phalænæ;*) their growth, however, was in proportion to the large supply of food.

"This interesting little family began to throw out some of their mature feathers on each side of the breast, about the middle of August, and the sexes became apparent. At this time they had forsaken their grasshopper food, feeding by choice on the soft victuals before mentioned. The nestling attachment of these little birds was very conspicuous towards the dusk of the evening, for a long time after they had forsaken the nest; they became restless, and apparently in search of a roosting-place, flying about the cage for half an hour, or until it was too dark to move with safety, when a singular soft note was uttered by one which had chosen a convenient spot for the night, at which instant they all assembled, repeating the same plaintive cry. In this interesting scene, as warmth was the object of all, a considerable bustle ensued, in order to obtain an inward birth; those on the outside alternately perching upon the others, and forcing in between them. During this confusion, which sometimes continued for a few minutes, the cuddling note was continually emitted, and in an instant all was quiet.

"Nothing can exceed the activity of these little creatures; they are in perpetual motion the whole day, throwing themselves into various attitudes and gesticulations, erecting the tail and crest at intervals, accompanied by a double or triple cry, which seems to express the words *cha, cha, cha.* They frequently take their food while suspended to the wires with their heads downwards, and not unusually turn over backwards on the perch. The males, of which there were three out of the four, began to sing with the appearance of their first mature feathers, and continued in song all the month of October, frequently with scarcely any intermission for several hours together. The notes are entirely native, consisting of considerable variety, delivered in a hurried manner, and in a much lower tone than I have heard the old birds in their natural haunts. The song is different from any thing of the kind I ever heard, but in part resembles most that of the stone-chat.

"The Dartford Warbler, like the white-throat, will sometimes suspend itself on wing over the furze, singing the whole time, but is more frequently observed on the uppermost spray, in vocal strain for half an hour together.

"Buffon, who appears to have been the first, if not the only person on the Continent, who knew any thing of the Dartford Warbler as a naturalist, seems to have known very little more than that such a bird existed, and that it had been found in Provence, (as his name of *Le Pitchou de Provence* evinces,) but he knew nothing of its habits. If he had not figured in it *Pla. enl,* 655, f. i. it would scarcely be conceived that the history given by that author could be intended for this species.

"These birds are not, as we at first supposed, confined to the south of Devon, contiguous to the coast, but have been observed in the more central parts of that county. In the autumn of 1809, several were noticed by Mr. Comyns, at least fifteen miles north of Exeter, amongst furze, one of which was shot, and sent to us for examination.

"We find, by recent observation, the Dartford Warbler is rather an early breeder, so that they either breed twice in the summer, or some accident must have caused their breeding so late as that before mentioned. In 1805, we observed a pair of these birds carrying food in their bills early in the month of May; from which, and their continual vociferations, there could be no doubt of their having young, and it was also evident the young had quitted their nest, and were sculking amongst the thick furze. Carefully did we examine every part for the nest, where the birds were most clamorous, but in vain; but there was no doubt that the young were frequently very near, by the temerity of the parent birds. The artifices these little creatures made to induce us to follow them, in order to entice us from the spot, were highly amusing. Their usual cry was changed into a scream of distress; they would almost suffer the hand to touch them, and then fall from the spray, and tumble along the ground, as if fluttering in their last struggle for existence."

Mr. Sweet says, "it is occasionally met with on Bexley Heath, near Dartford, Kent; and also on Blackheath, and on Wandsworth and Wimbledon Common, where it is said to build in the furze bushes." Mr. Bennet, the Vice-Secretary of the Zoological Society, had recently a pair of nestlings from the latter place, but they did not live long. I have once seen a pair on the wing on Shooters' Hill, and another singing on Blackheath.*

DAW.—A name for the Jack Daw.

DENTIROSTRES (Cuvier.)—*A group of birds whose bills are indented or toothed.*

DIDAPPER.—A name for the Dabchick.

DIPPER (*Cinclus aquaticus*, BECHSTEIN.)

*Cinclus aquaticus, *Bechst.* Naturg. Deut. 3. p. 808.—*Meyer*, Tasschenb. Deut. 1. p. 207.—Sturnus Cinclus, *Gmel.* Syst. 1. p. 803.—*Linn.* Syst. 1. p. 290. 5.—Turdus Cinclus, *Lath.* Ind. Orn. 1. p. 343. sp. 57.—Merula aquatica, *Briss.* 5. p. 252. 19.—*Raii*, Syn. p. 66. A. 7.—*Will.* p. 104. t. 24.—Le Merle d'Eau, *Buff.* Ois. 8. p. 134. t. 11.—*Ib.* pl. Enl. 940.—Cincle plongeur, *Temm.* Man. d'Orn. 1. p. 177.—Wasser Spreauw, *Sepp.* Nerderl. Vög. 1. t. p. 25.—Water Ouzel, Br. Zool. 2. No. 111.—Arct. Zool. 2. p. 332. 8.—*Will.* (Angl.) p. 149.—*Lewin's* Br. Birds, 2. t. 63.—*Lath.* Syn. 3. p. 48. 50.—*Ib.* Supp. p. 142.—*Mont.* Orn. Dict.—*Ib.* Supp. and App. to Supp.—*Walc.* Syn. 2. t. 196.—*Don.* Br. Birds, t. 24.—*Bewick's* Br. Birds, 2. p. 16.—*Selby*, pl. 45. p. 62.

Provincial.—Water-Crow. Water-Piet. Bessy-Ducker.*

This singular bird, according to the later authors, is placed in the thrush genus, to which it certainly has more affinity than to the stare. It is less than the blackbird; length seven inches and a half. The bill is three quarters of an inch long, nearly strait, black; the upper mandible a little turned down at the points; irides hazel; upper part of the head and neck deep brown; the eyelids, chin, fore part of the neck, and breast, white, beneath which is a band of rufous-brown; the rest of the upper parts, the belly, vent, and tail, are black; the feathers on the back and wings are edged with ash-colour; legs black; the tail much shorter than is usual in the thrushes.

This species is a retired solitary bird, rarely seen but on the banks of rapid rocky rivers, or streams of water, particularly in the mountainous parts, as in Scotland and Wales: it is not unfrequent in Devonshire.

In these places it breeds, and continues the whole year. The nest is very large, formed of moss and water-plants externally, and lined with dry oak-leaves: in shape it resembles that of the wren, but is not so deep, with a dome or covering: it is usually placed in some mossy bank impending the water, in which situation we have frequently found it. The eggs are five or six in number, of a semi-transparent white. The tinge of bluish colour which they are said to have, is occasioned by the yolk, and disappears when they are blown. These are considerably less than those of the blackbird; their weight rather more than one dram.

A pair of these birds, which had for many years built under a small wooden bridge in Caermarthenshire, we found had made a nest early in May. It was taken, but had no eggs, although the bird flew out of it at the time. In a fortnight after they had completed another nest in the same place, containing five eggs, which was taken; and in a month after we took a third nest under the same bridge, with four eggs; undoubtedly the work of the same birds, as no others were seen about that part. At the time the last nest was taken the female was sitting,

and the instant she quitted her nest plunged into the water, and disappeared for a considerable time; at last she emerged at a great distance down the stream. At another time we found a nest of this bird in a steep projecting bank over a rivulet clothed with moss. The nest was so well adapted to the surrounding materials, that nothing but the old bird flying in with a fish in its bill would have led to a discovery. The young were nearly full feathered, but incapable of flight, and the moment the nest was disturbed they fluttered out and dropped into the water, and to our astonishment instantly vanished, but in a little time made their appearance at some distance down the stream; and it was with difficulty two out of five were taken, as they dived on being approached.

*I have only once met with this nest, at Sorn Cleugh, Ayrshire, a romantic spot, where thickly-wooded rocks of variegated sand-stone rise for several hundred feet on each side of a small brook, approaching in some points so near, that the sun-beams cannot reach the channel below. By the side of a large block of sand-stone, which had fallen into the stream from the overhanging cliff, in one of those darkened corners, a pair of Dippers had built their nest. The block, in its fall, had dragged down with it an old moss-grown hazel, whose roots were plentifully clothed with lady-fern, (*Polypodium vulgare,*) sweet woodroof, (*Asperula odorata,*) and a profusion of green moss, (*Hypna.*) These handy materials were employed by the ouzels for the framework of their fabric, which was neatly arched over with a withered fern-leaf, and over this was laid a warm coating of green moss, with a few chips of the woodroof. The lining was of similar materials, but of finer quality, and more smoothly arranged. It was so near the edge of the stream also that it must have been overflowed had a flood occurred, as is not unusual, from its vicinity to the Clomfort range of hills. It is said the Dipper will sometimes nestle behind a waterfall when it overshoots a steep rock, and thus leaves a vacuum; and we are convinced of the fact from having watched a pair of these birds flitting stealthily out and in from such a locality at a small linn in the moors above Wemyss Bay, Renfrewshire; but the force of the falling stream precluded our getting sufficiently near to discover the nest.*[1]

This bird is amongst the few that sing so early in the year as the months of January and February. In a hard frost, on the 11th of the latter month, when the thermometer in the morning had been at 26°, we heard this bird sing incessantly in a strong and elegant manner, and with much variation in notes, many of which were peculiar to itself,

[1] Architecture of Birds, p. 325.

intermixed with a little of the piping of the woodlark. At the time it was singing the day was bright, but freezing in the shade: the sun had considerably passed the meridian, and was obscured from the bird by the lofty surrounding hills. The Dipper devours a considerable quantity of fishes' spawn, especially the large ova of the salmon.

According to Acerbi, it is not found in Italy; but in his travels through Sweden, he noticed it near Yervenkyle, in Finland, where he observed that during the winter it flies near the cataract.

The aquatic habits of this bird have not escaped the notice of ornithologists, some of whom speak of their flying under water. If, indeed, the wings being in motion can be called flying, it certainly does; but this is no more than is common to all diving birds, which, in pursuit of fish, or to escape danger, always use their wings to accelerate their motion. In this case, however, the wings are not extended, for that would retard their progress; but it is effected by short jerks from the shoulder joint.

We have seen it walk into the water, and, as it were, sink beneath the surface, as if its specific gravity was actually greater than that of the element; but doubtless some exertion must be used to keep itself at the bottom besides that of simple walking, or it would instantly rise and float on the surface; for, like all other birds, its specific gravity is greatly inferior to that of water. In one or two instances where we have been able to perceive it under water, it appeared to tumble about in a very extraordinary manner, with its head downwards, as if picking something; and at the same time great exertion was used both by the wings and legs. The idea of any bird being capable of walking beneath a fluid so infinitely more dense than itself, does not require any depth of philosophical reasoning to refute. Birds, of all animals, have the least specific gravity, and consequently require great exertion to keep themselves under water. The Dipper has been seen to float on the surface, and from thence to dive.

*"They are generally seen," says Selby, "in single pairs, and that always on the margin of a stream, perched in their particular attitude, on some projecting stone in the middle of the water. From such situations I have repeatedly seen them dive below the surface, and remain submerged for a considerable time, occupied in pursuing the fry, (or young fish,) or in search of the *larvæ* of aquatic insects. At other times they walk slowly into the water from the shallow part of a pool, till it becomes of sufficient depth for diving; but I have not been able, even from close observation, to certify the fact repeated by some naturalists, of their walking with apparent ease at the bottom; and which error of opinion might arise from the manner of their occa-

sionally entering the water as above stated. On the contrary, the same exertion seems to be used by them as by other diving birds."

"A large variety," says the same author, "with a dusky bar encircling the bottom of the neck, and the white of the breast and belly having numerous small black streaks pointing downwards, is mentioned by Latham, in the Second Supplement to his General Synopsis, under the title of the *Penrith Ouzel*. Two other varieties mentioned in the Appendix to Montagu's Supplement, I should consider as belonging to a very late brood of the preceding year, and which had not acquired the complete plumage of maturity."*

The young birds which were taken shewed no inclination to dive in a tub of water, but shewed great uneasiness by struggling on the surface. They refused all food, and soon perished. They will sometimes pick up insects at the edge of the water. When disturbed, it usually flirts up the tail, and makes a chirping noise. It sings prettily in the spring: their flight is even and rapid, like the kingfisher, as their wings are short. It is said to be met with in many parts of Europe, and even as far as Kamschatka; and in some places it is said to be migratory.

DISHWASHER.—A name for the Pied Wagtail.

DISTINCTION OF SPECIES.—We shall here mention the difficulty naturalists labour under in the description of some birds, their eggs, and nest. From a variation in plumage in some birds we doubt not naturalists have enumerated a greater variety in some genera than there really are; in others a similitude of colour in distinct species has occasioned their being confounded and blended together for one and the same. We do not so much wonder at it in exotics, who come to us in an imperfect state. But this has frequently happened to those of our own country.

If the ornithologist attended more to the habits and manners of birds, he would not be so liable to be led into these errors, being invariably distinct in some particulars, either in their notes, their nest, eggs, place of resort and various other circumstances necessary to be considered. It is true, as in the case of the marsh and cole tit, which are still supposed to be only a variety of the same species by some persons who have never minutely attended them in their natural haunts, that the eggs, and sometimes the nest, of distinct species are so nearly allied, that it would puzzle the most scrutinizing eye to determine; but other concomitant circumstances in the habits and manners of birds, such as the place of *nidification*, &c., &c., would determine. The length of time some birds are arriving at maturity in their plumage is the cause of very great difficulty in determining their species. The gulls are not

maturely feathered till the return of the breeding season, many not till the second, or perhaps the third year. There is very little doubt the winter mew is no other than the young of the common gull; as no doubt the wagel of authors is the young of the cobb of this work. It has been observed by an author of great ability, and for whom we have the highest respect, that the quill and tail feathers are permanent; but in this we cannot agree, as we could produce innumerable instances to the contrary. For instance: the male kestrel, which, from being barred on the tail feathers, becomes wholly ash-coloured, except at the end; also the laughing gull, whose tail is at first tipped with black, and the quills without white at their ends, change in the first moulting. The herring-gull and others whose tail is white when matured, are for the first two years mottled. Besides the markings of the feathers, there are other markings which change by age and season, such as the colour of the bill, legs, irides, and skin, particularly the orbits of the eye. Some species of birds seem to change their winter and summer feathers, or at least in part: in some this is performed by moulting twice a year, as in the ptarmigan; in others only additional feathers are thrown out. But we have no conception of the feathers themselves changing colour, although we have been informed of such happening in the course of one night. That confined birds do sometimes become wholly black, is unquestionable; but this is occasioned by a succession of feathers; and we have more than once seen the bullfinch in the state of changing, in which the black on the breast first appeared. The colouring of feathers is perhaps one of the most wonderful productions of nature. How the colouring secretions are disposed in such regular order, far surpasses human abilities to determine. It is probable, however, this is performed in an *embryo* state. The circulation in a feather seems to stop as fast as the parts are matured, and when it is fully grown, there certainly is no circulatory fluid whatever; of course the colours cannot change except in brilliancy. It might naturally be supposed for want of some secretory matter the feathers might become more brittle, or be injured, by wet or otherwise: but Nature, ever provident in all her ways, has taken care to supply every bird, more or less, with an external secretion of an unctuous nature, situated in a glandular bag upon the rump, which they instinctively make use of for oiling and dressing their feathers, as occasion requires. In water-fowl this bag is most conspicuous; and it is remarkable that birds most frequently use it after washing, previous to their feathers becoming perfectly dry.

DIVER (*Colymbus*, Linnæus.)—A genus of birds.

DIVING-PIGEON.—A name for the Guillemot.

DOBCHICK.—A name for the Dabchick.

DOOR-HAWK and DORRHAWK.—Names for the Night-jar.

DOTTREL (*Charadrius morinellus*, LINNÆUS.)

Charadrius Morinellus, *Linn.* Syst. 1. p. 254. 5.—*Gmel.* Syst. 2. p. 686.—Ind. Orn. 2. p. 746. 17.—*Raii*, Syn. p. 111. A. 4.—*Will.* p. 230. t. 55. 57.—*Briss.* 5. p. 54. 5. t. 4. f. 2. & p. 58. 6.—*Ib.* 8vo. 2. p. 225, and p. 126.—*Temm.* 2. p. 537. —Petit Pluvier, ou le Guignard, *Buff.* 8. p. 87.—Dottrel, Br. Zool. 2. No. 210. t. 73.—*Ib.* fol. 129. t. D.—Arct. Zool. 2. p. 487. A.—*Will.* (Angl.) p. 309. —*Albin*, 2. t. 62 & 63.—*Lath.* Syn. 5. p. 208. 14.—*Pult.* Cat. Dorset. p. 16. —*Walc.* Syn. 2. t. 162.—*Lewin's* Br. Birds, 5. t. 186.—*Don.* Br. Birds, 2. t. 42.—*Flem.* Br. Anim. p. 113.

This species of plover weighs about four ounces, sometimes five; length near ten inches. The bill is an inch long, dusky; irides hazel; the crown of the head black; forehead dusky and grey, mixed; a broad stroke of white from above the eye passes to the hind-head; cheeks and throat white; the neck of a cinereous olive; back and coverts of the wings olive-brown, each feather marginated with pale ferruginous; the breast is of a pale dull orange, on the upper part of which is a transverse line of white, bordered above with a narrow one of black; belly black; vent and thighs rufous white; the quills dusky-brown; the shaft and outer web of the feather white; the tail consists of twelve feathers of an olive-brown, barred near the end with black, tipped with white; legs dusky.

The female has the crown of the head brown, mottled with white, and the white line over the eye less conspicuous; the belly is mixed black and white; the white line on the breast is wanting: and the colours in general more dull.

Young birds have the whole under parts of the body of a very pale ferruginous brown.

The Dottrel appears to make this country a resting-place in its migratory flights to and from its breeding-place. It is seen on some of our downs, heaths, and moors, from April to the beginning of June, and returning again in September, remains till November.

On the Wiltshire downs it resorts to the new sown corn, or fallow ground, for the sake of the worms, its principal food. They fly in families of five or six in the autumn, which we have observed to be the two old birds and their young; but sometimes a dozen or more flock together. It is a stupid bird and easily shot; when disturbed, it will frequently extend one wing, and it seldom flies to any distance. It doubtless goes northward to breed; but we do not find any one who mentions the nest or eggs. We once saw them in pairs on the mountains of Scotland, sufficiently late for breeding.

* It usually appears in England and the south of Scotland in April, and again in September. On the Grampians, however, there is reason to believe that it breeds. In the Statistical Account of the Parish of Carmylie, (vol. I., p. 437,) it is said, "the Dottrels, birds of passage, alight on the rising grounds about the beginning of April, continue here about three weeks, remove to the Grampian hills, about twelve miles to the northward, and revisit this parish about the beginning of August. After abiding here about three weeks, they fly off to the southward, and are not seen till the first of April following." Colonel Thornton informed Montagu that he saw Dottrels in pairs on the Grampians, but not young birds.*

From all accounts, it is quite an alpine bird in the breeding season, and probably breeds with, and may be confounded with, the golden plover, in the highland swamps. It is very rare so far west as Devonshire; at least, one only has come under our notice in many years; but probably it is occasionally found upon the higher mountains of Dartmoor, where the golden plover is said to breed. We suspect that this last bird is often mistaken, in its summer plumage, for the Dottrel, the eggs of which may have been taken on the Mendip hills.

DOUCKER.—A name for the Divers and Grebes.

DOVE (*Columba*, Auctores.)—*A genus of birds which seek their food by scratching in the ground (*Rasores*, Illiger); we have four species native—the Ring, the Rock, the Stock, and Turtle Dove.*

DOVE-COLOURED FALCON.—A name for the Peregrine Falcon.

DRINK OF BIRDS.—*It is well known that carnivorous quadrupeds cannot exist without drink, and that they take liquid by means of their tongue; rapacious birds seldom or ever drink; eagles, hawks, and owls, we have kept for years without their ever tasting water. Even in birds which drink, there is no urinary bladder as in other animals, but the urine is received into the straight gut, (*rectum*,) hence called *Cloaca*.*

DUCK (*Anas*, Linnæus.)—A genus of birds.

DUCK (*Anas Boschas*, Linnæus.)

Anas Boschas, *Linn.* Syst. 1. p. 205. 40.—*Gmel.* 2. p. 538.—Ind. Orn. 2. p. 850. 49.—*Temm.* 2. p. 835.—Anas fera, *Briss.* 6. p. 318. 4.—*Ib.* 8vo. 2. p. 447.—Canard Sauvage, *Buff.* 9. p. 115. t. 7. 8.—Wild Duck, Br. Zool. 2. No. 279. t. 97.—*Ib.* f. 175.—Arct. Zool. 2. No. 494.—*Will.* (Angl.) p. 308. t. 72. 75.—*Albin*, 2. t. 10.—*Ib.* 1. t. 99.—*Lath.* Syst. 6. p. 489. 43.—*Pult.* Cat. Dorset. p. 21.—*Walc.* Syn. 1. t. 77.—*Don.* Br. Birds, 5. t. 124.—*Lewin's* Br. Birds, 7. t. 246.—*Flem.* Br. Anim. p. 123.—Common Wild Duck, *Mont.* Dict. 1.

The male bird, Mallard or Drake as it is called, weighs about two pounds and a half; length near twenty-three inches. The bill is of a

yellowish green; irides hazel; the head and upper part of the neck deep glossy green, bounded below with a white circle, which almost surrounds the neck; the lower part of the neck before, and the breast, dull purplish; the back is brown; the sides and scapulars white, marked with numerous small undulated lines of brown; the rump, upper and under tail coverts, black; on the wing coverts is a transverse streak of white, edged with another of black; beneath which is the speculum, of a fine purplish or violet blue, on the secondary quills, which are shaded to a black near the ends, and tipped with white, and forms another narrow line of this last colour on the wings; the belly is pale grey, minutely speckled with light brown in undulated lines; the tail consists of twenty feathers, the four middle ones are of a glossy greenish black, and curve upwards in a singular manner, and so connected as to appear only as two feathers; the others are strait, pointed, and of a greyish brown, margined with white.

The female is not so large, and of a rusty brown, spotted with dusky black; the speculum on the wing is like the male; but none of the tail feathers are curved; the legs of both sexes are orange.

The Duck breeds on many of our rivers and lakes, sometimes at a considerable distance from the water. It scrapes together a little of such vegetables as are contiguous for a nest, and lays from ten to eighteen eggs of a bluish white. At the time of incubation, the female plucks the down from her breast to line the nest, and frequently covers the eggs when she leaves them.

It frequently happens that a large variety of this bird is caught in our decoys, or shot by the sportsman; but these are only half-domesticated Ducks, which are obliged to leave the canals or pieces of water belonging to private persons, when they become frozen. These are called Rouen Ducks.

It is observable in most kinds of birds whose young leave the nest as soon as hatched, that they deposit their eggs on the ground. There are, however, some instances in which this species, the sheldrake, and perhaps others, occasionally vary in this particular.

We have been assured, by a person of undoubted veracity, that a half-domesticated Duck made a nest in Rumford Tower, hatched her young, and brought them down in safety to a piece of water at a considerable distance. Others have been known to breed in trees; and we recollect the nest of this bird being found in the head of an old pollard willow impending the water, from whence the young might readily drop unhurt into their natural element. * Mr. Tunstall mentions one, at Etchingham, in Sussex, which was found sitting upon nine eggs, on an

oak tree twenty-five feet from the ground: and the author of the Rural Sports records an instance of one taking possession of the nest of a hawk in a large oak. To these we can add, upon the testimony of a gentleman of the strictest veracity, that out of a large flock of half-domesticated Ducks, one deposited her eggs in the principal fork of a large tree near his house.

Mr. Pennant mentions thirty-one thousand two hundred having been taken one season in decoys, in the neighbourhood of Wainfleet; and it appears on record that no less than two thousand six hundred and forty-six Mallards or Drakes were taken in two days, near Spalding. These appear to have been young birds before they could fly, called flappers.* Wild Ducks pair, but when domesticated one male will serve several females.

* Dr. Latham remarks, that the male Muscovy Duck will not unfrequently produce with the common species.

Observing, at a farm-house, some Ducks that had the appearance of being a mixed breed between these two species, enquiry was made, and the farmer assured us he had seven young ones, the sire of which was of the Muscovy breed; two of these of apparently different sexes were obtained.

These hybrid birds bear a greater resemblance to the common than to the Muscovy species. The bill has a little reddish colour at the base, but there is no bare space about the eyes, as in the Muscovy, nor has the male the curled feathers in the tail, like the common Mallard. The size of the male is vastly superior to that of the female; the former is black on the crown of the head and the upper part of the body, glossed with purple and violet; the rest of the plumage is white. The female is quite white, except a single spot on the head. They have not the note of the common species, at least the female note is as inaudible as that of the other sex.

The common Duck, as well as other wild fowl, becomes scarcer every year, in a country like this, where agriculture makes so leading a feature; few comparatively remain to breed with us since the more extensive fens have been drained and converted into pasture. The great fenny tracts in Lincolnshire do not produce a dozen broods of wild fowl at present, where, half a century back, as many thousands were hatched. In a tour through that country, during the incubating season, we observed that the Mallards congregated while the Ducks were sitting; it is therefore probable that, like the domestic ones, they are mostly polygamous.*

DUCK HAWK.—A name for the Marsh Harrier.

DUCKER.—A name for several of the Grebes.

DULWILLY (*Charadrius Hiaticula*, Linnæus.)

Charadrius Hiaticula, *Linn.* Syst. 1. p. 253. 1.—*Gmel.* Syst. 2. p. 683.—*Raii*, Syn. p. 112. A. 6.—190. 13.—*Will.* p. 230. t. 57.—Ind. Orn. 2. p. 743. 8.—*Temm.* Man. d'Orn. 2. p. 539.—*Flem.* Br. Anim. p. 113.—Pluvialis torquata minor, *Briss.* 5. p. 63. 8. t. 5. f. 2.—*Ib.* 8vo. 1. p. 227.—Petit Pluvier à collier, *Buff.* Ois. 8. p. 90. t. 6.—Sea Lark, *Albin*, 1. t. 80.—*Will.* (Angl.) p. 310. t. 57.—Ringed Plover, Br. Zool. 2. No. 211.—*Ib.* p. 129. t. Add.—Arct. Zool. 2. No. 401.—*Lath.* Syn. 5. p. 201. 8.—*Lewin's* Br. Birds, 5. t. 184.—*Walc.* Syn. 2. t. 161.—*Don.* Br. Birds, 1. t. 18.—*Pult.* Cat. Dorset. p. 16.

Provincial.—Ring Dottrel. Sand Laverock.

This species weighs about two ounces; length between seven and eight inches. Bill half an inch long, the base half orange, the other black; irides hazel. At the base of the upper mandible the feathers are black, which passes in a broad streak under the eye, taking in the coverts of the ears; forehead white, behind which, on the top of the head, is a black band from eye to eye; over the eye a streak of white passing backwards; chin and throat white, continuing in a circle round the neck; beneath this, on the lower part of the neck, is a broad black band encircling that part; the back of the head and upper parts of the body and wing coverts pale brown; under parts white; quills dusky, with some white at their base; shafts partly white; tail consists of twelve feathers, the two middle brown, dusky towards the tips; the three next black towards the end; in the next is only a brown band on the inner web; the outer one quite white; the whole tipped the same; legs orange; claws black.

When flying, this bird shews a white bar on the wing, by reason of the base of the quills and tips of some of the greater coverts being of that colour.

The Ring Plover is a plentiful species in most parts of the known world. In England every part of the coast is enlivened with its shrill note. It has been said to leave us in the autumn; but this is certainly not the case, as we have frequently procured them throughout the severest winters in Devonshire, Cornwall, and other places; but at this time they quit the open shores, and seek shelter in creeks and inlets.

Early in May they pair, and we have found their eggs as early as the twentieth of that month. It makes no nest, but lays four eggs in a small cavity in the sand just above high-water mark. These are of a cinereous-brown, marked all over with small black and ash-coloured spots; weight three drams. It is remarkable that these, as well as most if not all species of birds that lay invariably four eggs only on the ground, place them so as to occupy the least possible space; that is,

with their small ends touching each other as a centre. It is greatly attached to its young; will use various deceptions to save them from men or dogs; sometimes will flutter along the ground as if crippled, and if pursued will fly to a little distance, distend all its feathers, and seem to tumble head over heels repeatedly, till it has enticed its enemy to a distance from its young, and then it flies off.

In the autumn they become gregarious, and continue in small flocks all winter, mixing sometimes with purrs and dunlins. We have frequently observed a variety of this bird without any black about the head and breast, and the bill and legs dusky; others seem inclined to those markings, and a tinge of orange on the bill and legs. From these gradations it whould appear that such are birds of the first year not maturely feathered, and are not unfrequently shot in company with the others. We suspect the *Alexandrinus* of Linnæus to be this bird in one of its changes.

We took an egg from the nest of this bird, and after carrying it a great many miles, were surprised to find the young one in it alive, and actually chirping at the end of three days, notwithstanding it had been deprived of its accustomed warmth. This is a proof that eggs, or rather the embryo young, are not easily destroyed by moderate cold, comparatively speaking, as relative to the temperature of a breeding bird, at a certain period of incubation. A small crack in the shell had given the young the means of respiration, and consequently of uttering sound. The Ringed Plover is entirely a shore bird, residing there the whole year, and picking up its sustenance from the rejectamenta of the sea. It is probable those of the northern parts of Great Britain, go southward after the breeding season. Mr. Bewick remarks that these birds are common in all the northern countries; and that they migrate into Britain in the spring, and depart in autumn. From the northern parts of England they probably migrate, but in the southern parts many are observed throughout the year.

DUNBIRD and DUNCUR.—Names for the Pochard.

DUN CROW.—A name for the Crow.

DUNG BIRD.—A name for the Dung Hunter.

DUN DIVER.—A name for the female Merganser.

DUNG HUNTER (*Lestris parasiticus*, Boié.)

*Lestris crepidatus, *Temm.* Man. d'Orn. 1st edit. p. 515.—Larus parasiticus, *Linn.* Syst. 1. p. 226. 10.—*Lath.* Ind. Orn. 2. p. 819. sp. 15.—Cataracta parasitica, *Retz.* Faun. Suec. p. 160. No. 122.—Stercorarius longicandus. *Briss.* 6. p. 155. 3.—Le Lattic à long queue, *Buff.* Ois. 8. p. 445.—pl. Enl. 762.—Arctic Bird, *Edw.*—*Gmel.* Syst. t. 148. an old male.—Arctic Gull, *Lath.* Syn. 6. p. 389.—Arct. Zool. 2. p. 459.—*Lewin's* Br. Birds, 6. 207.—*Walc.* Syn. 1. 116.—Arctic Skua, *Flem.* Br. Anim. p. 138.—*Temm.* Man. d'Orn. 2. p. 797.

FEMALE AND YOUNG.

Larus crepidatus, *Gmel.* Syst. 1. p. 602. sp. 20.—*Lath.* Ind. Orn. 2. p. 819. sp. 14.—Cataracta cepphus, *Raii*, Syn. p. 129. 11.—*Temm.* Orn. Bor. 36. p. 126. —Black-faced Gull. *Lath.* Syn. 6. p. 387.—Br. Zool. 2. No. 441. t. 86.—Arct. Zool. 2. No. 460.*

Provincial.—Dung Bird. Teaser. Dirty-Allen. Badock. N. Shui.

The length of this species is about twenty-one inches. The bill is an inch and a half long, pretty much hooked, and of a dusky colour; nostrils placed in a kind of cere; the top of the head is black; the sides, forehead, neck, and under parts of the body, are white; across the breast there is a pale dusky bar; the upper parts of the body, wings, and tail, are black; the base of the quills, white on the inner webs; the two middle feathers of the tail are four inches longer than the rest; legs black and scaly: another specimen had the sides of the head, neck, and throat, buff colour; the breast white, shaded with grey, becoming dark slate colour on the belly.

This, like all the genus, is liable to vary in plumage according to age. In some the white parts are mixed with brown, and the black parts dusky brown; the middle feathers of the tail also very little longer than the rest.

The female is said by some to be entirely brown, palest beneath; others assert this sex to be like the male, which is most probable, and that the brown variety is only young birds in their first feathers. This bird is not uncommon in the Hebrides and in the Orkneys, where they breed amongst the heath, appearing in May, and retiring in August. It has been met with as far south as Yorkshire, but is a rare species in the southern parts of Great Britain, and only accidentally occurs. It is said to make a nest of dry grass and moss in some marshy place, and lay two eggs, the size of those of a hen, ash-coloured or very light brown, spotted with black or dark-brown blotches.

This and other species of gulls pursue the lesser ones, not for the sake of their dung, as some have asserted, but to make them disgorge, which they catch with great dexterity before it reaches the water.

It is to be remarked that all this tribe are voracious, and if pursued by a hawk or other bird that creates alarm, it readily disgorges in order to lighten itself, and escape by flight. It is no uncommon thing to see them bring up a large quantity of half-digested food when slightly wounded by shot: tame gulls will do the same if driven by a dog. Gulls float lightly on the surface of the water by reason of the quantity of feathers in proportion to their weight, and seem incapable of diving. If they are wounded ever so slightly, and fall in the water, they never attempt to dive like other aquatic birds.

The Dung Hunter is found in Norway, Sweden, Denmark, and Russia, as far as Kamtschatka; it is also common in Greenland.

DUNKER, or DUN-CUR.—A name for the Pochard.

DUNLIN (*Tringa variabilis*, MEYER.)

Tringa alpina, *Linn.* Syst. 1. p. 249. 11.—*Gmel.* Syst. 2. p. 676.—Ind. Orn. 2. p. 736.—*Wils.* Amer. Orn. 7. p. 25.—Cinclus torquatus and Cinclus minor, *Briss.* 5. p. 216. 11. t. 19. f. 2.—*Ib.* 8vo. 2. p. 268.—Tringa Cinclus, *Gmel.*—Gallinago Anglicana, *Briss.* 5. p. 309. 5.—*Ib.* 8vo. 2. p. 288.—Le Cincle, *Buff.* Ois. 7. p. 553.—Le Brunette, *Buff.* Ois. 7. p. 493.—Dunlin, or Brown Sandpiper, Br. Zool. 2. No. 205.—*Ib.* fol. p. 126. 1. E. 1. f. 2.—Arct. Zool. 2. No. 391.—*Raii*, Syn. p. 109. A. 11.—*Will.* p. 226.—*Ib.* (Angl.) p. 305.—Red-necked Purre, *Lath.* Syn. 5. p. 185. 33.—*Ib.* Supp. p. 249.—*Walc.* Syn. 2. t. 151.—*Lewin's* Br. Birds, 5. t. 176.—*Flem.* Br. Anim. p. 108.—*Bewick's* Br. Birds, 2. p. 117.

Provincial.—Purre. Least Snipe. Ox-bird. Sea Snipe. Pickerel. Bull's Eye.

This species of Sandpiper weighs from nine to eleven drams, and we have had specimens weighing an ounce and a half; the length of the largest eight inches. The bill full an inch in length, slender, a little bent downwards, and of a dusky colour; irides dusky; the upper part of the head, and whole plumage above, ferruginous brown; the former and hind neck streaked with dusky, the rest spotted with black; the cheeks, under side of the neck, and breast, whitish, streaked with black; those on the neck are small, and more inclining to dusky; the wing coverts greyish brown, edged with lighter; the quills black; the four first wholly so, the rest edged more or less with white on their exterior webs; the base of the interior webs of the same colour; the belly and vent white; the former marked with large black spots, the latter with a few dusky streaks; the tail consists of twelve feathers, the two middle ones longest and dusky, the others cinereous, all edged with white; legs dusky; toes almost divided to their origin.

The female differs little or none from the other sex. The young birds have no spots on the belly or sides at first, and when they begin to appear are small; the upper parts are also lighter, dashed with cinereous; the middle of the feathers dusky.

This species does not appear so plentiful as many others; but we have seen it on our coasts in every month of the year, except from the latter end of June to the beginning of August; most frequent in the spring and autumn.

We once killed several of these birds on the mountains in Scotland, near Inverness, in the month of August. May they not breed in the northern parts of this kingdom?

Mr. Pennant says he has received the eggs from Denmark; and adds, they lay four in number, of a dirty white, blotched with brown

round the thicker end, and marked with a few small spots of the same colour on the smaller end. Not uncommon on the Devonshire and Cornwall coast; frequent also on the coast of Wales. Is also found in Greenland, Iceland, and Scandinavia, and on the Siberian Alps, as well as at Hudson's Bay.

An individual of this species had the whole under parts from the neck nearly black; another, killed in October, had the upper parts of the back and scapulars chiefly cinereous, dusky on the shafts, mixed with a few feathers richly margined with rufous; head and neck pale, streaked with brown, and nearly destitute of the usual rufous. We learn from the Linnæan Transactions, v. viii. p. 266, that the nest is composed of dried tufts of sprit, (*Juncus squarosus,*) and the eggs four, smoky white, irregularly marked with light and dark-brown blotches, rather more distant at the smaller end.

*The circumstance of the Purre and Dunlin appearing and disappearing in constant alternation, added to their general form, their corresponding weight and measurement, the exact similitude of their bill and legs, and their cuneiform shape and colour of the tail, have long induced us to conjecture that they were actually the same species; and that in fact the black spots on the breast, and other variations in colour observed in the Dunlin, were not more extraordinary than those changes incidental to the breeding season, which are noticed in the black neck and breast of the golden and grey plovers. This suspicion was not a little strengthened by the inquiries of several of our scientific friends, who had found these birds approach so near in plumage, that they required a clearer definition of the two species. In order, therefore, to obtain the best information, we procured as many of these birds as possible, about that period of the seasons when the changes of plumage are known to take place, the early part of both the spring and autumn; by so doing we have had the satisfaction to succeed in obtaining these supposed species in the intermediate changes of plumage, so as to leave no doubt that they are one and the same.

The plumage of one shot early in October, was a mixture of the two birds, but we could not venture to annihilate one species so long established unimpeached, until further corresponding evidence had been obtained. Other specimens, however, partaking more of the Purre, were killed in the early part of December; these had more or less black feathers, margined with rufous, especially on the body near the junction of the wing, and a few intermediate feathers in the scapulars that evidently bespoke the Dunlin, although there were no distinct spots on the belly. From what we have lately observed, the progress of change in plumage is similar to what has been noticed in all other

birds which have a double annual moulting. The young birds appear first in the plumage of the Purre, and the old birds throw off the Dunlin plumage at the close of the breeding season; and, like their young, continue the whole winter in that dress by which they have been distinguished under the name of Purre.*

DUNNOCK.—A name for the Hedge Chanter.

DUNPICKLE.—A name for the Moor Buzzard.

DUNTER.—A name for the Eider Duck.

DUSKY DUCK.—A name for the Harlequin Duck.

DUSKY GODWIT (*Totanus fuscus*, Leisler.)

*Totanus natans, *Bechst.* Naturg. 4. 227. 2.—Tringa Totanus, *Meyer*, Vög. 200. 1.—Tringa fusca, *Linn.* 12th edit. p. 252.—Scolopax curonica, *Gmel.* Syst. 1. 669. 46.—*Lath.* Index, 2. p. 724. sp. 37.—Scolopax Cantabrigensis, *Gmel.* Syst. 1. p. 668. sp. 45.—*Lath.* Ind. p. 721. sp. 23.—Chevalier de Courlande, *Buff.* par *Sonnini*, 22. 102.—Courland Snipe, *Lath.* Syn. Supp. 2. p. 310.—Cambridge Godwit, *Penn.* Br. Zool. 2. p. 446.—*Mont.* Dict.

YOUNG.

Scolopax Totanus, *Gmel.* Syst. 1. p. 655. sp. 12.—*Lath.* Ind. 2. p. 721. sp. 24.—Totanus maculatus, *Bechst.* Naturg. 4. 203.—Spotted Snipe, *Lath.* Syn. 5. p. 149. sp. 19. var. A.—*Penn.* Arct. Zool. 2. p. 467. No. 374.—*Mont.* Dict. and Supp.

BREEDING PLUMAGE.

Totanus fuscus, *Bechst.* Naturg. 4. p. 212.—Scolopax fusca, *Gmel.* Syst. 1. p. 657. sp. 5.—*Lath.* Ind. 2. p. 724. sp. 35.—Tringa atra, *Gmel.* Syst. 1. p. 673. sp. 26.—*Lath.* Ind. 2. p. 738. sp. 43.—Tringa fusca, *Falck.* Reis. 3. p. 376.—Chevalier noir, *Cuv.* Reg. Anim. 1. p. 493.—Barge brune, *Buff.* 7. p. 503.—Dusky Snipe, *Lath.* Syn. 5. p. 155.—Black-headed Snipe, *Lath.* Syn. Supp. 2. p. 313.

The confusion which has taken place with regard to this bird, may be seen from the preceding list of synonimes. It is described by Fleming as having the base of the lowest mandible and feet red; rump white; tail coverts with cross black and white rays. The length is twelve and the breadth twenty-two inches; weight five ounces; bill upwards of two inches in length, black; the base of the lower mandible and feet red; face and plumage above dusky; back, wing-coverts, and scapulars, with white spots; beneath, dusky tinged with grey, the tips of the feathers white. In winter, the plumage, above, has a greyish tinge; below, white; lores dusky.

The young birds have the plumage with a tinge of olive brown; scapulars and wing-coverts with triangular black spots; belly whitish, with zig-zag lines and spots of brownish ash.

It appears to breed far north, and is observed on our coasts during winter, or by the sides of rivers and lakes. Its food is chiefly small fresh-water or land shells, which it prefers to insects or worms.*

DUSKY GREBE.—The young of the Horned Grebe.

DUSKY SNIPE.—A name for the Dusky Godwit.

DWARF HERON.—A name for the Egret.

Eagle.

EAGLE.—A name given to the larger species of the Falcon family, differing in little but size from the true falcons. There seem to be three well ascertained native species; the Golden Eagle, the Osprey, and what we call Eagle, from its frequent occurrence, and which we shall now introduce.

EAGLE.—(*Haliaetus albicilla*, SAVIGNY.)

*Falco albicilla, *Gmel.* Syst. 1. p. 253.—*Lath.* Ind. Orn. 1. p. 9. 2.—Fauna Suec. No. 55.—*Muller*, No. 58.—Vultur albicilla, *Linn.* Syst. 1. p. 123. 8.—Aquila albicilla seu Pygargus, *Briss.* Orn. 1. p. 427. 5.—*Will.* Orn. p. 31.—*Raii*, Syn. p. 7. 5.—Falco albicaudus, *Gmel.* p. 258. sp. 51.—Le Grand Pygargue, *Buff.* Ois. 1. p. 99.—Aigle Pygargue, *Temm.* Man. d'Orn. 1. p. 49. 2nd edit.—Fisch-Adler, *Bechst.* Tasch. Deut. 1. p. 10. sp. 5.—White-tailed Eagle, *Will.* (Angl.) p. 61.—*Bewick's* Br. Birds, 1. p. 9.—Cinereous Eagle, Br. Zool. 1. No. 45. t. 18.—Arct. Zool. 2. p. 214. B.—*Lath.* Syn. 1. p. 33. No. 8.—*Ib.* Supp. p. 11.—*Lewin's* Br. Birds, 1. t. 4.—*Mont.* Orn. Dict. 1.—*Ib.* Supp.—*Shaw's* Zool. 7. p. 79.—*Don.* Br. Birds.—Erne, *Low's* Faun. Orcad. p. 34.

YOUNG.

Falco Ossifragus, *Linn.* Syst. 1. p. 124. 3.—*Gmel.* Syst. 1. p. 255. 4.—*Lath.* Ind.

Orn. 1. p. 12. 7.—*Raii*, Syn. p. 7. 3.—*Will.* p. 29. t. 1.—*Muller*, No. 60.—Falco Melanæetus, *Gmel.* p. 254. sp. 2.—*Lath.* Ind. Orn. 1. p. 10. 3.—*Linn.* 1. p. 124. 2.—*Raii*, Syn. p. 7. 4.—*Will.* p. 30. t. 2.—*Briss.* 1. p. 434. 8.—Aquila Ossifraga, *Briss.* 1. 437. 9.—L'Orfraie, ou Grand Aigle de Mer, *Buff.* 1. p. 112. t. 3.—*Ib.* pl. Enl. 112. yearling Bird.—*Ib.* 415. the figure of one from two to three years old.—Sea Eagle, Br. Zool. 1. No, 44. t. 17.—*Ib.* fol. t. 63.—Zool. 2. No. 86. A.—*Will.* (Angl.) p. 59. t. 1.—*Lath.* Syn. 1. p. 30.—*Ib.* Supp. p. 9.—*Lewin's* Br. Birds, 1. t. 1.—*Mont.* Orn. Dict.—*Ib.* Supp.—*Walc.* Syn. 1. t. 2.—*Shaw's* Zool. 7. p. 81.—*Pult.* Cat. Dorset. p. 2.—*Don.* Br. Birds, t. 105.—*Low's* Faun. Orcad. p. 32.—*Bewick's* Br. Birds, 1. p. 11.—*Selby*, pl. 3. and 3* p. 9.

Provincial.—Erne. White-Tailed Eagle.

" The identity," says Selby, " of the Cinereous and Sea Eagle is now so satisfactorily established, that I have, without any hesitation, brought the synonimes hitherto assigned to the two supposed species under the same head. To many it may appear singular that this fact should only now be fully ascertained; but when we consider the great impediments to the investigation of the natural history of these birds, arising from the wild and mountainous districts they inhabit, the difficulty of procuring specimens, and the few opportunities afforded, therefore, of watching the progress of the young bird to maturity; the slow advance of our knowledge in regard to this, as well as other facts connected with this branch of science, will rather be a matter of regret than surprise. Many of our ornithological works also can only be regarded as compilations from the essays of earlier authors, in which the errors, arising from such deficiency of information as must naturally attend the infancy of a new pursuit, may be expected; and which errors have too often, without any attempt at further scrutiny, been faithfully transcribed.

" The similarity in habits and manners, as well as in essential specific characters, between the Cinereous and Sea Eagle, first led me to suppose that they were of the same species, and that the difference of plumage might only proceed from the respective ages of the individuals, as appears in many other instances. An opportunity having occurred of watching the progress of the young Sea Eagle from its earliest age, I eagerly availed myself of it, and witnessed the gradual and interesting changes it underwent, till it had finally acquired the plumage of the adult, or Cinereous Eagle. During this process, I was happy to find that my supposition had been anticipated, and the fact ascertained both by M. Cuvier, and by M. Temminck."*

This species is rather less than the Golden Eagle. The bill, cere, and irides, of a pale yellow; a bare space between the bill and eye of a bluish colour; the head and neck of a pale ash-colour; the body and wing coverts cinereous, clouded with brown; the quills dusky; tail

dusky at the base, white at the end; the legs of a light yellow, feathered but little below the knee. The male is rather darkest in colour.

In the young bird the bill is bluish black; cere, sides of the mouth, and orbits, yellow; irides light hazel. The feathers on the head and upper part of the neck are long and narrow, dusky brown at their ends, tawny towards the base, and white at the roots; the whole body dark brown, intermixed with rust-colour; the tail and its coverts mottled with yellowish white, dark and faint ash-coloured brown: the quills are of a dark chocolate colour; the shafts white towards the base; the legs strong and yellow, feathered very little below the knee, and measuring two inches in circumference; the claws black; the inner one, which is largest, is two inches long, much hooked, and nearly one inch round at the base.

The specimen from which this description is taken was killed by Sir Robert Littleton's game-keeper in Shropshire, early in the spring of 1792, was presented to us by Lord Valentia, and is now in our museum. It was accompanied by a letter from Sir Robert, the purport of which was, that his servant being out shooting saw two large birds feeding on the carcase of a sheep, which appeared recently killed; that having nothing but small snipe-shot with him he turned back, intending to go home for larger; that the eagles then followed him, and frequently came so near that he concluded they meant either to atttack him or his dogs. Suddenly losing sight of one, he judged it was very near him behind, and being somewhat alarmed, turned round and shot at it in a hurry; after which the bird flew some hundred yards, and dropped. On his approach it was vomiting blood; and he killed it after a struggle of half an hour. He adds, that it was the largest of the two.

The other eagle continued in the neighbourhood some time after, and roosted in the high trees of a wood belonging to Sir Robert Littleton.

Another of this species was shot in Epping Forest a few weeks before. Others have been frequently killed in the New Forest; and we are informed that scarce a year passes without one being seen in that part of the country; two of which we have seen nailed up in the hall of the lodge at Lyndhurst.

John Maxwell, Esq. of Ardbraccan, in Ireland, favoured us with two young birds of this species alive, taken the preceding year on a mountainous precipice, or craggy cliff, called Slieve Donald, impending over the sea, in the county of Down. That gentleman informed us that two men, covered with sackcloth and armed, were lowered by ropes to the area, which, with considerable difficulty, they robbed of two young,

leaving only one addled egg behind. The old Eagles being so furious as to create serious alarm, neither the nest nor colour of the egg were noticed. Some fragments of flesh were in the nest.

The Eaglets were covered with a glossy, dark, murry-coloured down. A basket was attached to the ropes that conveyed the men down: into this the young birds were put; but from the violence and amazing strength of the parent birds, they were with difficulty carried off. These birds were not twelve months old when we received them. On their first moulting they became much darker, particularly about the breast and thighs, the latter almost wholly of a dusky black. At two years old the base of the bill became yellow: in the third year there was not any material change. At this time one of them killed and devoured the other, probably from some neglect in feeding them, as before that event they lived together in perfect harmony.

The bill of this bird is rather longer, and more straight towards the base, than is usual with this tribe, a circumstance, probably, which induced Linnæus to class it with the vulture; but as no part of its head or neck is bare of feathers, the characteristic mark of that genus, we have followed the example of later authors, and continued it amongst the Eagle or falcon genus. It inhabits Scotland and the Orkneys, from which place an acquaintance of ours had two taken from a nest in the highest cliffs in that island, in which there were three young. Latham says, that Dr. Heysham informed him of a nest of one of this species, near Keswick, in Cumberland, in which was found a trout, weighing about twelve pounds; and between the upper and lower lakes of Killarney, is a rock called the Eagle's nest, originating from the circumstance of its breeding there annually. The bird mentioned by Dr. Heysham was obtained alive, and had been in his possession about ten years when he communicated the circumstance to Latham. In that bird it was six or seven years before the tail became white; those from which our description is taken were about three years old.

From the astonishing height these and some other birds fly, we are led to believe that they are capable of living in a much lighter atmosphere than any other animals. From the top of some of the highest mountains in Scotland, we have seen several of them soaring together at so great a distance as to appear scarce larger than a swallow. It is said to prey indiscriminately on land animals, fish, and aquatic birds, and probably every animal of inferior strength suffers from its rapacity.

Two of this species contending in the air over Loch Lomond, in the Scottish Highlands, became so firmly grappled to each other by their talons, that they were precipitated into the water. The upper-

most regained the power of its wings, but the other was taken alive by a Highlander, who witnessed the scene, and who waited till the wind had wafted him near the shore. This curious account we received from an officer who bought the Eagle.

Although this is an extremely bold bird, it will not venture to contend with a dog or a fox in its natural wild state. An Eagle and a fox were observed to be regaling themselves on the carcase of a goat, that had fallen down a precipice in the Highlands of Scotland. The latter frequently obliged the other to desist, and retreat a little, but it was not sufficiently alarmed to prevent returning; and it occasionally threw itself into bold and picturesque attitudes of defence, spreading the wings and tail, and erecting every feather.

Two living Eagles were sent to us from Ireland, and were, on their arrival at Bristol, detained by an officer of excise, upon a plea that there was a duty upon all singing-birds. Had this happened on the other side of the water it might have been termed an Irish story. The unfortunate birds would, however, have been starved at the custom-house, if application had not been made to the head of that department in the port of Bristol, offering to pay any demand for their release, if legally detained for their vocal abilities. By this officer it was most wisely determined, after some consideration, that Eagles could scarcely be considered as singing birds.

This is by far the most plentiful of the aquiline race, in the British dominions; not a year passes but many are shot in England. A specimen killed on the Mendip hills, in Somersetshire, two years since, (1802,) was very small, probably a male. Its talons were blunt, as if worn in confinement.

*In their native districts these noble birds are generally seen near the sea-shore, or upon the rocky precipices on the margin of the inland lakes, from whence they pounce upon the fish while swimming near the surface of the water. Aquatic birds also become their frequent prey. They generally choose the most inaccessible cliffs for building their nests, laying one and sometimes two eggs, entirely white and nearly the size of that of a goose; one of these, in Selby's possession, was laid by a bird after it had been in confinement twenty years.

It is probable that it was the near resemblance of the young of the White Headed Eagle (*Haliaetus leucocephalus*, Savigny,) and our Eagle, which led Wilson to adopt the opinion that they are the same, "in a different stage of colour," fortified by observing the changes in the plumage of several birds in confinement. One kept at Phila-

delphia was believed to be the Sea Eagle, (*H. albicilla*,) till in the fourth year it assumed the white plumage of the head.

Temminck describes this bird to have its "plumage very irregularly stained and varied with clear and deep brown, the beak black, and the iris of a clear brown, in the *young* state; the plumage of a pretty bright chocolate brown; the beak, feet, and iris, of a yellowish white, in the *adult* state; the tail always a little longer than the wings.

The young birds, he tells us, are very difficult to distinguish from those of the common eagle, (*H. albicilla*, SAVIGNY,) though their plumage is less regularly varied in the brown colours, and the tail always a little longer. At the second moult, and often even at the first, the distinction becomes easy, though the plumage is not perfect till the third or fourth moult. "There have been kept," he adds, "many individuals of this species at Berlin, Paris, and London. I have observed the indicated variations upon those in the menagerie at Paris, where there are five of different ages."

Mr. Vigors seems to have come to the same conclusion with Wilson when he tells us, "our common Sea Eagle (*F. leucocephalus*, LINNÆUS) affords the *type* of the genus,"[1] (*Haliaetus*, SAVIGNY,) and refers us to Wilson, vol. v. pl. 36, for a figure.[2] Trusting to Mr. Vigors's acknowledged science upon such points, I had a copy of Wilson's figure engraved for this work, to illustrate the article EAGLE; but subsequent inquiry has led me to believe the birds clearly distinct. The authority indeed of Temminck alone appears to be quite decisive. "Never," says he, "at any age, do we see individuals of this species (*H. albicilla*) with the head and upper part of the neck of a pure white. I have seen more than fifty individuals which had no white on the head. I have kept them in captivity, and seen many others in menageries, which assumed no white. In the menagerie of the Jardin des Plantes at Paris, one has lived six, and another ten, years; and I have seen another in a German menagerie, kept for nine years. Very old individuals have the head and the neck of an ashy brown, (*brun cendré*,) but the iris never becomes yellowish white, as in the *H. leucocephalus*."

So far as I can judge, this appears decisive; though some naturalists might be disposed to consider the white colour of the head and of the iris, and the slight elongation of the tail scarcely sufficient to constitute

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[1] Zool. Journ. i. 321. [2] Ib. i. 336.

more than a variety; but leaving this point to be settled by systematists, who delight in such things, I shall here enrich my pages with the admirable description given by Wilson of the manners of the White Headed Eagle, which is, in my estimation, worth whole volumes of nibbling criticisms about genera, species, and types, or the rubbish usually entitled monography. The cut, reduced from Wilson's splendid work, is subjoined.

White Headed Eagle.

"The celebrated cataract of Niagara," says Wilson, "is a noted place of resort for those birds, as well on account of the fish procured there, as for the numerous carcases of squirrels, deer, bears, and various other animals, that in their attempts to cross the river above the falls have been dragged into the current, and precipitated down that tremendous gulf, where, among the rocks that bound the rapids below, they furnish

a rich repast for the vulture, the raven, and the Bald Eagle,[1] the subject of the present account.

"This bird has been long known to naturalists, being common to both continents, and occasionally met with from a very high northern latitude, to the borders of the torrid zone, but chiefly in the vicinity of the sea, and along the shores and cliffs of our lakes and large rivers. Formed by nature for braving the severest cold; feeding equally on the produce of the sea and of the land; possessing powers of flight capable of outstripping even the tempests themselves; unawed by any thing but man: and from the ethereal heights to which he soars, looking abroad, at one glance, on an immeasurable expanse of forests, fields, lakes, and ocean, deep below him, he appears indifferent to the little localities of change of seasons; as in a few minutes he can pass from summer to winter, from the lower to the higher regions of the atmosphere, the abode of eternal cold, and from thence descend at will to the torrid or the arctic regions of the earth. He is therefore found at all seasons in the countries he inhabits, but prefers all such places as have been mentioned above, from the great partiality he has for fish.

"In procuring these, he displays, in a very singular manner, the genius and energy of his character, which is fierce, contemplative, daring, and tyrannical; attributes not exerted but on particular occasions; but when put forth, overpowering all opposition. Elevated on the high dead limb of some gigantic tree that commands a wide view of the neighbouring shore and ocean, he seems calmly to contemplate the motions of the various feathered tribes that pursue their busy avocations below; the snow-white gulls slowly winnowing the air; the busy *tringæ* (sandpipers) coursing along the sands; trains of ducks streaming over the surface; silent and watchful cranes, intent and wading; clamorous crows, and all the winged multitudes that subsist by the bounty of this vast liquid magazine of nature. High over all these hovers one, whose action instantly arrests all his attention. By his wide curvature of wing, and sudden suspension in air, he knows him to be the fish-hawk, (*Pandion Haliætus*, Savigny,) settling over some devoted victim of the deep. His eye kindles at the sight, and balancing himself, with half-opened wings, on the branch, he watches the result. Down,

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[1] The epithet *bald*, applied to this species, whose head is thickly covered with feathers, is equally improper and absurd with the titles goatsucker, kingfisher, &c., bestowed on others; and seems to have been occasioned by the white appearance of the head when contrasted with the dark colour of the rest of the plumage. The appellation, however, being now almost universal, is retained in the following pages.

rapid as an arrow from heaven, descends the distant object of his attention, the roar of its wings reaching the ear as it disappears in the deep, making the surge foam around. At this moment the eager looks of the Eagle are all ardour; and levelling his neck for flight, he sees the fish-hawk once more emerge, struggling with his prey, and mounting in the air with screams of exultation. These are the signal for our hero, who, launching into the air, instantly gives chase, and soon gains on the fish-hawk; each exerts his utmost to mount above the other, displaying in the rencontre the most elegant and sublime aerial evolutions. The unincumbered Eagle rapidly advances, and is just on the point of reaching his opponent, when, with a sudden scream probably of despair and honest execration, the latter drops his fish; the eagle, poising himself for a moment, as if to take a more certain aim, descends like a whirlwind, snatches it in his grasp ere it reaches the water, and bears his ill-gotten booty silently away to the woods.

"These predatory attacks and defensive manœuvres of the Eagle and fish-hawk, are matters of daily observation along the whole of our sea board, from Georgia to New England, and frequently excite great interest in the spectators. Sympathy, however, on this as on most other occasions, generally sides with the honest and laborious sufferer, in opposition to the attacks of power, injustice, and rapacity,—qualities for which our hero is so generally notorious, and which, in his superior, man, are equally detestable. As for the feelings of the poor fish, they seem altogether out of the question. When driven, as he sometimes is, by the combined courage and perseverance of the fish hawks from their neighbourhood, and forced to hunt for himself, he retires more inland, in search of young pigs, of which he destroys great numbers. In the lower part of Virginia and North Carolina, where the inhabitants raise vast herds of those animals, complaints of this kind are very general against him. He also destroys young lambs in the early part of spring; and will sometimes attack old sickly sheep, aiming furiously at their eyes.

"In corroboration of the remarks I have myself made on the manners of the Bald Eagle, many accounts have reached me from various persons of respectability, living on or near our sea coast; the substance of all these I shall endeavour to incorporate with the present account.

"Mr. John L. Gardiner, who resides on an island of three thousand acres, about three miles from the eastern point of Long Island, from which it is separated by Gardiner's Bay, and who has consequently many opportunities of observing the habits of these birds, has favored me with a number of interesting particulars on this subject; for which I beg leave thus publicly to return my grateful acknowledgment.

"'The Bald Eagle,' says this gentleman, 'remains on this island during the whole winter. They can be most easily discovered on evenings, by their loud snoring while asleep on high oak trees; and when awake, their hearing seems to be nearly as good as their sight. I think I mentioned to you, that I had myself seen one flying with a lamb ten days old, and which it dropped on the ground, from about ten or twelve feet high. The struggling of the lamb, more than its weight, prevented its carrying it away. My running, hallooing, and being very near, might prevent its completing its design. It had broken the back in the act of seizing it; and I was under the necessity of killing it outright to prevent its misery. The lamb's dam seemed astonished to see its innocent offspring borne off into the air by a bird.

"'I was lately told,' continues Mr. Gardiner, 'by a man of truth, that he saw an Eagle rob a hawk of its fish, and the hawk seemed so enraged as to fly down at the Eagle, while the Eagle very deliberately in the air, threw himself partly over on his back; and while he grasped with one foot the fish, extended the other to threaten or seize the hawk. I have known several hawks unite to attack the Eagle; but never knew a single one to do it. The Eagle seems to regard the hawk as the hawks do the king-birds, only as teazing troublesome fellows.'

"From the same intelligent and obliging friend, I lately received a well preserved skin of the Bald Eagle, which, from its appearance, and the note that accompanied it, seems to have belonged to a very formidable individual. 'It was shot,' says Mr. Gardiner, 'last winter, on this island, and weighed thirteen pounds, measured three feet in length, and seven from tip to tip of the expanded wings; was extremely fierce looking; though wounded, would turn his back to no one; fastened his claws into the head of a dog, and was with difficulty disengaged. I have rode on horseback within five or six rods of one, who, by his bold demeanour, raising his feathers, &c., seemed willing to dispute the ground with its owner. The crop of the present was full of mutton from my part blood merinos; and his intestines contained feathers, which he probably devoured with a duck, or winter gull, as I observed an entire foot and leg of some water fowl. I had two killed previous to this, which weighed ten pounds avoirdupoise each.'

"The intrepidity of character mentioned above, may be further illustrated by the following fact, which occurred a few years ago near Great Egg-harbour, New Jersey. A woman who happened to be weeding in the garden, had set her child down near to amuse itself while she was at work, when a sudden and extraordinary rushing sound, and a scream from her child, alarmed her, and starting up she beheld the infant thrown down, and dragged some few feet, and a large Bald

Eagle bearing off a fragment of its frock, which being the only part seized, and giving way, providentially saved the life of the infant.

"The appetite of the Bald Eagle, though habituated to long fasting, is of the most voracious and often the most indelicate kind. Fish, when he can obtain them, are preferred to all other fare. Young lambs and pigs are dainty morsels, and made free with on all favorable occasions. Ducks, geese, gulls, and other sea fowl, are also seized with avidity. The most putrid carrion, when nothing better can be had, is acceptable; and the collected groups of gormandising vultures, on the approach of this dignified personage, instantly disperse, and make way for their master, waiting his departure in sullen silence and at a respectful distance, on the adjacent trees.

"In one of those partial migrations of tree squirrels that sometimes take place in our western forests, many thousands of them were drowned in attempting to cross the Ohio; and at a certain place, not far from Wheeling, a prodigious number of their dead bodies were floated to the shore by an eddy. Here the vultures assembled in great force, and had regaled themselves for some time, when a Bald Eagle made his appearance, and took sole possession of the premises, keeping the whole vultures at their proper distance for several days. He has also been seen navigating the same river on a floating carrion, though scarcely raised above the surface of the water, and tugging at the carcase, regardless of snags, sawyers, planters, or shallows. He sometimes carries his tyranny to great extremes against the vultures. In hard times, when food happens to be scarce, should he accidentally meet with one of those who has its craw crammed with carrion, he attacks it fiercely in the air; the cowardly vulture instantly disgorges, and the delicious contents are snatched up by the Eagle before they reach the ground.

"The nest of this species is generally fixed on a very large and lofty tree, often in a swamp, or morass, and difficult to be ascended. On some noted tree of this description, generally a pine or cypress, the Bald Eagle often builds, year after year, for a long series of years. When both male and female have been shot from the nest, another pair have soon after taken possession. The nest is large, being added to and repaired every season, until it becomes a black prominent mass, observable at a considerable distance. It is formed of large sticks, sods, earthy rubbish, hay, moss, &c. Many have stated to me that the female lays first a single egg, and that, after having sat on it for some time, she lays another; when the first is hatched, the warmth of that, it is pretended, hatches the other. Whether this be correct or not, I cannot determine, but a very respectable gentleman of Virginia assured

me, that he saw a large tree cut down, containing the nest of a Bald Eagle, in which were two young, one of which appeared nearly three times as large as the other. As a proof of their attachment to their young, a person near Norfolk informed me, that in clearing a piece of woods on his place, they met with a large dead pine tree, on which was a Bald Eagle's nest and young. The tree being on fire more than half way up, and the flames rapidly ascending, the parent Eagle darted around and among the flames, until her plumage was so much injured, that it was with difficulty she could make her escape, and even then she several times attempted to return to relieve her offspring.

"No bird provides more abundantly for its young than the Bald Eagle. Fish are daily carried thither in numbers, so that they sometimes lie scattered round the tree, and the putrid smell of the nest may be distinguished at the distance of several hundred yards.

"The flight of the Bald Eagle, when taken into consideration with the ardour and energy of his character, is noble and interesting. Sometimes the human eye can just discern him, like a minute speck, moving in slow curvatures along the face of the heavens, as if reconnoitring the earth at that immense distance. Sometimes he glides along in a direct horizontal line, at a vast height, with expanded and unmoving wings, till he gradually disappears in the distant blue ether. Seen gliding in easy circles over the high shores and mountainous cliffs that tower above the Hudson and Susquehanna, he attracts the eye of the intelligent voyager, and adds great interest to the scenery. At the great cataract of Niagara, already mentioned, there rises from the gulf into which the fall of the horse-shoe descends, a stupendous column of smoke or spray, reaching to the heavens, and moving off in large black clouds, according to the direction of the wind, forming a very striking and majestic appearance. The Eagles are here seen sailing about, sometimes losing themselves in this thick column, and again reappearing in another place, with such ease and elegance of motion, as renders the whole truly sublime:

> "High o'er the watery uproar silent seen,
> Sailing sedate in majesty serene,
> Now midst the pillar'd spray sublimely lost,
> And now, emerging, down the rapids tost,
> Glides the Bald Eagle, gazing, calm and slow,
> O'er all the horrors of the scene below;
> Intent alone to sate himself with blood,
> From the torn victims of the raging flood.

"The Eagle is said to live to a great age—sixty, eighty, and, as some assert, one hundred years. This circumstance is remarkable, when we

consider the seeming intemperate habits of the bird, sometimes fasting, through necessity, for several days, and at other times gorging itself with animal food, till its craw swells out the plumage of that part, forming a large protuberance on the breast. This, however, is its natural food; and for these habits its whole organization is particularly adapted. It has not like man invented rich wines, ardent spirits, and a thousand artificial poisons in the form of soups, sauces, and sweetmeats. Its food is simple, it indulges freely, uses great exercise, breathes the purest air, is healthy, vigorous, and long-lived. The lords of the creation themselves might derive some useful hints from these facts, were they not already, in general, too wise or too proud to learn from their inferiors, the fowls of the air and the beasts of the field."

In the Edinburgh edition of Wilson's work, the first volume of which I have just seen, Dr. Jamieson says, in a note to the Sea Eagle, (*Falco ossifragus,*) "This is the young of the *Falco leucocephalus,* or White Headed Eagle, not the young of the *Falco albicilla,* or Cinereous Eagle, which is the Sea Eagle of Britain." He does not inform us upon what grounds he has come to this decision, in opposition to the best authorities on the subject. See Temminck, vol. i. p. 50; Selby's Illustrations, pt. i. p. 9.*

EAGLE OWL (*Bubo maximus,* Sibbald.)

* Strix Bubo, *Linn.* 1. p. 131.—*Gmel.* Syst. p. 286. sp. 1.—*Lath.* Ind. Orn. 1. p. 51.—*Raii,* Syn. p. 24. 1.—*Will.* p. 63. t. 12.—*Briss.* 1 p. 477.—Le Grand Duc. *Buff.* Ois. 1. p. 322.—*Ib.* pl. Enl. 435.—*Veil.* Ois. d'Afr. 1. p. 106. pl. 40.—Bubo maximus, *Gerin.* 1. p. 81.—*Flem.* Br. Anim. p. 57.—*Sibbald,* Scot. p. 15.—Hibou Grand Duc, *Temm.* Man. d'Orn. 1. p. 100.—Grosse Ohreule huhu, *Bechst.* Naturg. Deut. 2. p. 882.—*Meyer,* Tassch. Deut. 1. p. 70.—*Ib.* Vög. Liv. und Esth. p. 33. sp. 4.—Strix Bubo Atheniensis, *Gmel.* Syst. 1. p. 286. var. B.—Black-winged Horn-Owl, *Albin,* 3. t. 6.—Athenian Horn-Owl, *Edw.* t. 64.—*Lath.* 1. p. 118.—Great-eared Owl, Br. Zool. 1. No. 64. t. 29.—Arct. Zool. 2. No. 114.—*Albin,* 3. t. 6.—*Will.* (Angl.) p. 99. t. 12.—*Lath.* Syn. 1. p. 116. 1.—*Ib.* Supp. p. 40.—*Lewin's* Br. Birds, 1. t. 23.—*Mont.* Orn. Dict.—*Ib.* Supp.—*Bewick's* Br. Birds, Supp.—*Walc.* Syn.—*Shaw's* Zool. 7. p. 211.*

Provincial.—Great Owl. Great Horned Owl.

This species is almost equal to an eagle in size. Irides bright yellow. The plumage of the whole bird is a mixture of black-ferruginous, brown, and cinereous, elegantly varied with lines, spots, and specks; the wings are very long, the second and third quill-feathers being the longest; tail short, marked with dusky bars; legs strong, covered thickly with a light-coloured down quite to the claws, which are strong, much hooked, and dusky.

This bird is rarely met with in England; a few instances only are on record. It has been shot in Yorkshire and in Sussex, as well as in Scotland, but is more plentiful in Norway and other parts of Europe.

It is said to inhabit mountainous and rocky situations, and not woods, being rarely known to perch on trees.

It preys on hares, rabbits, moles, and other inferior animals; and even snakes and toads. The eggs are said to be larger than those of a hen, mottled like the bird; and that only two are found in a nest.

Dr. Latham has mentioned three varieties, one of which has the legs bare of feathers; and he considers the black-winged horn owl of Albin to be a mere variety.

EARED GREBE (*Podiceps auritus*, LATHAM.)

Colymbus auritus, *Linn.* Syst. 1. p. 222. 8.—*Gmel.* Syst. 2. p. 590.—Podiceps auritus, Ind. Orn. 2. p. 781. 3.—*Temm.* Man. d'Orn. 2. p. 723.—Colymbus auritus, *Briss.* 6. p. 54. 6.—*Ib.* 8vo. 2. p. 372.—Le petit Grebe huppé.—*Buff.* Ois. 8. p. 235.—Eared Dobchick, *Edw.* t. 96. f. 2.—Eared Grebe, Br. Zool. 2. No. 224. t. 79.—*Ib.* fol. 133.—Arct. Zool. 2. p. 499. B.—*Lath.* Syn. 5. p. 285. 4.—*Walc.* Syn. 1. t. 104.—*Lewin's* Br. Birds, 5. t. 107.—*Don.* Br. Birds, 2. t. 29.—*Flem.* Br. Anim. p. 132.—Colymbus cristatus minor.—*Briss.* 6. p. 42. 3. t. 3. f. 2.—*Ib.* 8vo. 2. p. 369.

To Colonel George, of Penryn, in Cornwall, we are indebted for a very fine male specimen of this bird, shot on the 15th of March, 1811, so that we may fairly conclude, as it was so near the breeding season, that its plumage was fully matured; we shall therefore give a description of this bird, and then point out the material distinction between the two species.

The weight was one pound; the length thirteen inches and a half. The bill is black, an inch in length to the feathers on the forehead, a little reflected; the upper mandible is nearly straight at the point, the lower mandible decreases at about a quarter of an inch from the end, and from thence forms a conic point, which makes the bill appear to reflect more than it actually does; the lore is black; irides bright scarlet; head and neck black; chin spotted with white; the sides of the head furnished with long slender yellow feathers, commencing behind the upper part of the eye, and extending downwards for more than an inch; these flow backwards, the lower series are shaded to a deep orange; the black feathers on the forehead and crown are long and terminate abruptly as if cut with a pair of scissors, forming an obtusely conic crest; the back, scapulars, and coverts of the wings dusky black: the first six quills are dusky black; the next three black only on the outer web, the inner web white; the lower part of the neck before is mottled black and white; the sides of the breast, and sides of the body, are similarly marked, the latter interspersed with ferruginous; legs and feet dusky.

This, like most of the genus, is subject to some variety. In some the heads and tufts behind the eyes are brown; sides of the head white;

neck white on the fore part, marked with ferruginous spots; sides of the body marked the same; the back of the neck and upper parts of the body brown; some of the secondary quill-feathers and wing coverts next the body white. The female, in general, is not so full of feathers on the head.

Inhabits the fens of Lincolnshire, where it breeds; lays four or five white eggs on a floating *(?)* nest. Feeds on fish and water plants. Is sometimes found in the winter in the inlets and rivers on the coast. Found in the north of Europe, in Iceland, and Siberia.

EASTERLING.—A name for the Smew.

EBB.—A name for the Bunting.

EGGS OF BIRDS.—By experiment it appears that birds do not instinctively know the necessary time of incubation; for we have repeatedly taken the eggs of a bird unincubated, and placed them under another of the same species, who was on the point of hatching, and *vice versâ*, those on the point of hatching into the nest of such who had only began to sit; and in both cases the young were brought to maturity. Birds will sometimes discriminate the egg of another species put into their nest, and will turn it out; but they will frequently breed up the young of another when exchanged, provided they are of the same age, and not very large when the experiment is made.

Those who suppose a bird capable of producing eggs at will, or that any bird is excited to lay more eggs than usual by daily robbing their nest, are certainly mistaken. In a domesticated fowl it is probable the desire of incubation may be prolonged by leaving little or nothing in the nest to sit on. It will therefore lay the number allotted by nature, which is determined before the first egg is produced. If it is prevented from incubation by any means whatever, it may begin again to lay in five or six days; but there is always an interval of a few days, and sometimes as many weeks, which must wholly depend on the age and vigour of the bird. When it happens that a fresh lot of eggs is laid with only a few days' interval, and that perhaps in the same nest, it is deemed a continuation, for want of nice observation; but we are not to look to domesticated animals for natural causes, for those are taken from their state of nature. Let us look to the birds in their natural wild state, and see if any well-attested instances are to be found where they have laid more eggs successively, by taking one from the nest daily. For instance, the number laid by a hedge-sparrow is commonly five, sometimes only four, and rarely six; will the taking away the daily-laid egg produce a seventh or an eighth? No: we believe there never was an instance; at least we have never been fortunate enough to discover one in the great

variety of experiments we have tried on various birds, amongst which was the swallow, which has been declared to lay as many as nineteen.[1] A bird will only lay the usual number peculiar to the species; and if, at the period of incubation, it perceives the nest emptied, it is deserted. The link of nature having been broken, the female stimulates to love again, and soon brings forward by that *stimulus*, aided by the *male fecundity*, a new lot of eggs; never more than the former, and usually less, because this is properly a forced production, at the additional expense of the vigour of the bird, and loss of animal parts, which is the cause of a great variation as to the number of eggs laid by domestic fowls, depending entirely on the strength of the constitution, and the nourishment of the food. In all animals taken immediately under the care of man, the dictates of nature are partly suppressed, their food changed, habits and manners altered, and disease often ensues, which is the origin of the great variety of colours in reclaimed animals.

Nature pursues invariably one course; therefore to draw a general rule of her actions we must strictly adhere to her in an unmolested, uncultivated state; for if we deviate from that we must infallibly err. We do not mean to say accidental varieties do not take place in animals unreclaimed, but such *lusus* are by no means common; and when we see a bird materially deviate in colour from its species, we may consider it as a constitutional defect, that the natural secretions are changed or suppressed with which the feathers are dyed. To enter minutely into a discussion on this head would swell this article beyond its limits; all we wish is, to point out the necessity of strictly adhering to nature for observations on natural causes. A domestic fowl, who will sit for six weeks upon an empty nest, is not to be produced as a proof of the actions of nature. Will any bird, in its natural wild state, continue to sit on its nest after the eggs are taken out? One egg, indeed, is sometimes sufficient to produce the act of incubation; but what is it then that prevents the secondary eggs from coming forward, when it is well known if a bird is prevented from sitting, she soon resumes her desire of propagation natural to every animated being? Because the very act of incubation is the effective cause; the line which nature has drawn, and which the animal by instinct feels. We conceive the production of a second lot of eggs to be an extraordinary exertion of nature; a wonderful proof of the affection of the all-wise Creator for the preservation and continuation of his creatures, and the resources he has furnished some animals with, in case of necessity, to prevent the total extinction

[1] An assertion of Dr. Lister. Vide Br. Zool. p. 337.

of the breed. It is but few birds, if any, that would produce a second lot of eggs in the same season if unmolested; but if their nests are destroyed, it is probable three or four separate lots may be protruded.

We have never been able to discover with certainty, either in the red-breast or hedge-sparrow, who are the earliest breeders, the production of a second brood after the first has been brought to maturity. Their attention to their young continues long after they leave the nest. The great exertion to collect food for so many must exhaust the animal spirits, to recruit which is a work of time; so that the season is too far advanced for a second production. The secondary eggs being brought forward is not effected by the will of the bird, but is caused by the dictates of nature, the impulse of love.

We shall here take notice of the eggs of a hedge-sparrow being found in a nest of that bird in a prolific state, and a young cuckoo of a fortnight old covering them, as related by Dr. Jenner, in order to strengthen a supposition we shall hereafter mention. May not this be owing to a very different cause than what has been suspected? If the cuckoo had dropped an egg into the hedge-sparrow's nest before it was finished, it is unlikely it would have been suffered to remain; but even suppose it had, it would not have been sat on till the hedge-sparrow began to incubate her own eggs; consequently the cuckoo's egg, which is largest, could not be hatched before the others in the common course of nature. Again: if we suppose the hedge-sparrow had previously laid her eggs, which she sat on together with the cuckoo's, and that the young cuckoo, soon after it was hatched, had turned out of the nest the eggs or young of the hedge-sparrow, which is the natural consequence, how should these eggs come into the nest containing a living *fœtus?* It is very improbable a bird should lay eggs in a nest where she had young, for such we may call the young cuckoo, the hedge-sparrow not knowing the difference. If birds were capable of this, it would be similar to superfetation in viviparous animals, of which there are but few instances. We can therefore only account for this singular circumstance by supposing the cuckoo is actually endowed with the property of retaining its egg in the *uterus*, after it is matured, till it has discovered a nest in a state fit to deposit it. The consequence of this retention would be a dilatation of the *embryo* by the internal heat of the body,[1] and the *fœtus* advanced towards perfection in proportion to the time the egg remained in that state. Of course, after such a previous enlargement of the *fœtus*, were

[1] The viper is oviparous, or rather ove-viparous, hatching its young by the internal heat of its body.

the egg dropped into the nest of a bird on the point of sitting, it would most certainly be hatched as long before the eggs of the bird whose nest it was deposited in as it had been forwarded in the *uterus*. It has frequently been observed, that where the egg of a cuckoo has been found in the nest of a bird together with some of its own, that the cuckoo's egg is hatched first.[1] This seems difficult to account for, unless upon the principle we have suggested, as the egg of that bird is rather superior in size to that of any bird whose nest it makes choice of to deposit it in; amongst which the yellowhammer's is the largest, weighing in general from thirty-six to forty-six grains; whereas that of the cuckoo weighs from forty-four to fifty-four grains. The other birds which the cuckoo more generally chooses to incubate its egg, seldom produce eggs above forty grains in weight, and mostly from thirty to thirty-six; if, therefore, the *embryo* of the cuckoo was not sometimes enlarged before the egg was laid, is it reasonable to suppose it would be first hatched?

In respect to the young cuckoo suffering the hedge-sparrow's eggs to remain in the nest, as above-mentioned, which is contrary to the general rule, we can only suppose some defect existed in the young cuckoo, or that these eggs were so placed in some small cavity in the bottom of the nest that its utmost efforts could not disengage them. These and other accidental causes are much more likely, than that the hedge-sparrow should lay these additional eggs at the time she was performing the act of nutrition to her supposed offspring.

From late observation we conclude the female cuckoo retires from the male so soon as she feels an inclination to deposit an egg, and does not admit him again while she is capable of laying,—all the eggs of the first set being fecundated at the same time. This, indeed, is probable with respect to all birds, though it is difficult to ascertain how the prolific quality is regulated so as only to affect such a portion of eggs in the *ovarium;*[2] and that every particular species should almost invariably lay the same quantity.

The extraordinary growth of a young cuckoo is no more than what happens with others produced from eggs of a disproportionate size; for instance, the egg of a raven is not half the size of that of the kite, and yet the young of the former are not longer arriving at maturity than the latter. Some birds are hatched blind, and entirely naked; others

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[1] Jenner, Nat. Hist. of the Cuckoo, p. 3.

[2] Domestic fowls, separated from the male after the first impregnation, are known to lay many prolific eggs.—Young on Turkeys, in Nat. Hist. of Norfolk.

possess the organs of sight, and are covered with down. Those birds who feed and breed on the ground, and never perch on trees, are generally provided with warm covering, and have the use of their eyes and legs soon after they are excluded from the egg.[1] These are not fed by the parent bird, being more perfectly formed when hatched, but soon discover by instinct their proper food; on the contrary, predacious birds are totally helpless at first, though warmly clothed with down.

The extraordinary and rapid growth of the egg is also worthy notice. We before observed there is a line drawn by nature, to prevent more than a certain quantity of eggs, peculiar to each species, being fecundated at once; otherwise a bird in one season might produce all the eggs she possessed, and afterwards become useless in propagation.

But notwithstanding only a portion of the *ovaries* are impregnated at the same time, yet the stimulus to love considerably increases the size of all the eggs in the *ovarium*. When this stimulus ceases, be it from what cause it may, the organic particles cease to flow to that part; therefore, as a redundance of organic particles excite love by distending those parts necessary for production, so, on the contrary, the want of a sufficient quantity reduces them to their primitive state. It seems absolutely necessary that a dilatation of the *ovaries* should take place before they can be fecundated; and that, by the law of nature, only a certain number should be sufficiently large to be impregnated at the same time; and that no others can possibly receive the *male stimulus* till after the first set are produced. We have before remarked, a superabundance of organic particles is cause sufficient to separate an egg from the *ovarium* without *male contact*. It is possible a bird, in its natural state, may lay an egg unimpregnated, which may account for addled eggs being found in nests. We once found a whitethroat sitting on four eggs perfectly dried up. This also seems to prove that birds do not know the necessary time of incubation.

The growth of an egg after impregnation is exceedingly rapid; the yolk only is formed in the *ovarium*, where it remains till within twenty-four hours of its being produced; when that part is fully matured, it separates and falls down the *oviduct* into the *uterus*, where the egg is perfectly formed; first, the *vitellus* or yolk is surrounded by the *albumen* or white; and lastly is covered with a calcareous shell.[2] The very expeditious growth of these last appear to be an extraordinary exertion

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[1] With a few exceptions. Some that occasionally perch have these properties.

[2] We do not mean to enter minutely into the physiological description of an egg, which may be found in various publications.

of nature. The calcareous covering of an egg is concreted and formed in a most expeditious manner; a few hours only seems necessary for this work. Only one *vitellus* separates from the *ovarium* at a time, (except as we shall hereafter mention,) till the exclusion of which no other succeeds. But as this is a daily production, with few exceptions, there is no more time allowed for perfecting the *albumen* and shell than twenty-four hours.

As the course of nature is sometimes obstructed by remote causes, there are few general rules without some exceptions; but an individual deviation by no means perverts the law of nature, but is simply an individual defect. We shall here instance imperfect eggs sometimes produced, such as want the *vitellus*,[1] and others containing two yolks; and although there are probably very few instances of such productions from birds in their wild state, yet it is no uncommon thing in domestic fowls. The egg of a hedge-sparrow and of the common tern, are the only instances, in a state of nature, we ever remember finding yolkless, and were of course not half the usual size. We are also told of eggs with double shells; and we have frequently seen eggs without any calcareous covering, but wrapped in a soft pliable skin like vellum.

To account for these extraordinary productions, we must conceive a defect exists at the time in some part of the animal body; and as the *vitellus* and *albumen* derive their origin from different parts, it is natural to conclude, in those preternatural eggs destitute of yolk, the cause proceeds from some defect in the *ovarium*. May it not be occasioned by an unequal stimulus in the parts necessary to perfect the egg, and that the growth of the *vitellus* is not in proportion to the *albumen?* Thus while the vesicles appointed for collecting, preparing, and uniting the organic particles of the *albumen* in the *uterus* have all their effective powers, those of the *ovarium* are weak; of course the one goes on with the operations appointed by nature, while the other is stopped in its progress for want of a sufficient quantity of organic matter to bring it to perfection at the same time. Hence the reason of the common fowl sometimes producing three or four imperfect eggs following, by which the *vitellus* becomes sufficiently large, and a regular succession of perfect eggs are produced. On the contrary, when, from the same causes, the growth of the *vitellus* in the *ovarium* is too luxuriant, two yolks pass the oviduct together, which being surrounded with the usual

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[1] The *Centininum Ovum* of naturalists, vulgarly called a cock's egg. This name has been given it from a supposition that it was the hundredth egg, or the last the bird could lay.

quantity of the *albumen*, is brought forth in the form of a single egg, of an extraordinary size. From these it is possible that twins are produced, but more frequently deformities, which are seldom hatched.

Colours of Eggs.—*It was a notion of Darwin's that the variety in the colours of eggs, as well as in the colours of many animals, is adapted to the purposes of concealment from their natural enemies. Thus, he remarks that the eggs of the hedge-chanter (*Accentor modularis*) are greenish blue, as are those of magpies and crows, which are seen from beneath in wicker nests, between the eye and the blue of the firmament. M. Glöger, a German naturalist, has followed up this singular theory into some detail, and considers it to be a remarkable provision of nature, that birds whose nests are most exposed, and whose eggs are most open to the view of their enemies, lay eggs of which the colour is the least distinguishable from that of surrounding objects, so as to deceive the eye of birds, or of other plundering animals; while birds, the eggs of which have a bright decided colour, and are consequently very conspicuous, either conceal their nests in hollows, or only quit their eggs during the night, or begin to sit immediately. It is also to be remarked, that in the species of which the nest is open, and the female brings up the brood without the assistance of the male, these females are generally of a different colour from the male, less conspicuous, and more in harmony with the objects around. The foresight of nature has, therefore, provided for the preservation of the species of which the nest is altogether exposed, by imparting to the eggs a colour which will not betray them at a distance; while she could, without inconvenience, give the brightest colour under circumstances where the eggs are concealed from view. Or, perhaps, to speak more correctly, numerous birds can deposit their eggs in places accessible to view, because the colour of the eggs makes them be confounded with the surrounding objects; while other birds are obliged to conceal their nests, because the conspicuous colour of the eggs would have attracted their enemies. Let the explanation, however, be what it may, the fact exists, and M. Glöger, who has examined all the birds of Germany, is said to have satisfactorily proved it. Eggs, then, must be distributed into two series, according as their colour is simple or mixed. The simple colours, such as white, blue, green, yellow, are the brightest, and consequently the most dangerous for the eggs. The pure white, the most treacherous of colours, is found among birds which breed in hollow places, like the woodpeckers, the wry-necks, the roller, the merops, the kingfisher, the snow-bunting, the robin, the water-ouzel, the swallow, the martins. It is only among these birds that the eggs are of a remarkable whiteness.

The eggs are also white among some species, which, like the domestic swallow, certain passeres, the troglodytes, &c., construct their nests with such narrow openings, that the eye of their enemies cannot penetrate within. White eggs are also found with birds that quit them only during the night, or at least very late during the day, such as the owls and falcons. Lastly, this colour is found among birds which lay only one or two eggs, and sit immediately after, like the pigeons, the boobies, and the petrels. As to the bright green or blue colour, it is found to belong to many species which make their nests in hollows, like the starling, the bullfinch, the fly-catcher, &c. In the second place, this colour is common to the egg of birds, the nests of which are constructed of green moss, or placed at least in the midst of grass, but always well concealed; such, for example, as the tomtit, linnet, &c. Lastly, green eggs are met with among many strong birds able to defend themselves against plunderers, like the herons. A light green colour, verging toward a yellowish tint, is found among the eggs of the many gallinacea which lay among the grass, without making a finished nest, which soon disappears beneath the quantity of eggs; like the hoopoe, the perdrix cinereus, the pheasant. The same colour is also remarked among several of the palmipedes, which quit their eggs when they lay them, but which are attentive in watching them, as the swans, the geese, the ducks, the divers, &c. The eggs of certain great birds which make their nests in the open air, but are well able to defend themselves, are a dirty white, as may be observed among the vultures, eagles, storks. Among the eggs of a mixed colour, they are to be distinguished which have a white ground, and those of which the ground differs from white. The eggs with a white ground are those of the European oriole, the long-tailed tit, the cole-tit, the nut-hatch, the creeper, and the common swallow. Most of the eggs with a white ground are concealed in well-covered nests. The eggs of a mixed colour, and of which the ground is not white, at least of a pure white, are those of the lark, the grasshopper-lark, the yellow-hammer, the wagtail, &c.; then the crows, the jays, the thrushes, the quails, &c., with most of the singing birds, the colour of the interior of whose nest harmonizes with that of the eggs.[1]

With all due deference, however, to M. Glöger, I would remark that the theory appears to me much more beautiful and ingenious than true; for I could enumerate more instances in which the principle fails than holds good. Glöger's instances, also, are far from accurate; for

[1] Glöger, Verhand. der Gesells. Natur. Freunde, in Berlin.

though the kingfisher, for example, hides her shining white eggs in a hole, yet that will not conceal them from the piercing eyes of their chief enemy,—the water-rat,—which, like all burrowing animals, can see with the least possible light. Many birds, also, which lay bright-coloured eggs, make open nests: the thrush, for example, whose clear blue eggs, with a few black blotches, are far from being concealed by the plastering of clay and cow-dung, upon which they are deposited. The green-bird (*Fringilla chloris*, Temminck) again, which builds an open nest of green moss, lined with horse-hair, black or white, as it can be had, lays clear white eggs, with red spots, precisely like those of the common wren and the hay-bird, (*Sylvia trochilus*,) which build covered nests, with a small side entrance; while the house-sparrow (*Passer domesticus*, Ray) lays eggs of a dull dirty green, streaked with dull black, and always builds in holes, or under cover. These objections will render it unnecessary for me to follow Darwin into his fanciful account of the origin of the colour of eggs, which he ascribes to the colour of the objects amongst which the mother bird chiefly lives, acting upon the shell through the medium of the nerves of the eye; for if this were correct, we should have the green-bird and the red-breast, instead of their white eggs, laying blue ones, like the hedge-sparrow and the redstart.[1]

With respect to the eggs of birds, it has been remarked by Mr. Knapp,[2] that in those of one hue, the colouring matter resides in the calcareous part; but where there are markings, these are rather extraneous to it than mixed with it. The elegant blue that distinguishes the eggs of the firetail (*Sylvia phœnicurus*, Lath.) and of the hedge-sparrow, though corroded away, is not destroyed by muriatic acid. The blue calcareous coating of the thrush's egg is consumed; but the dark spots, like the markings on the eggs of the yellow-hammer, house-sparrow, magpie, &c., still preserve their stations on the film, though loosened and rendered mucilaginous by this calcareous matter, which is partly taken up during incubation, the markings upon these eggs remain little injured, even to the last, and are almost as strongly defined as when the eggs are first laid. These circumstances seem to imply that the colouring matter on the shells of eggs does not contribute to the various hues of the plumage, but it is reasonable to conclude, are designed to answer some particular object not obvious to us; for though the marks are so variable, yet the shadings and spottings of one species never wander so as to become exactly figured like those of another family, but preserve year after year a certain characteristic figuring.

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[1] Insect Transformations, p. 35.

[2] Journal of a Naturalist, p. 230.

"Rooks," says Professor Brande, "build a nest particularly exposed on the highest trees; the jackdaws conceal theirs in holes; while the lapwing, woodcock, and snipe, lay on the bare ground; and yet the colour of the eggs of all these birds is nearly identical. Again, the blackbird and song thrush are birds of very similar habits; they build in the same places, but the blackbird lays a dull rusty-coloured egg, and the thrush a clear blue one, with a few dark, well-defined spots. The woodpeckers, it is asserted, lay white eggs; they ought, according to the theory, but their practices seem very different. The hawks, which are so able and accustomed to defend their nests, we should expect to find with pure white eggs, but they are dull-coloured and inconspicuous. The buzzards, the most cowardly among the tribe, have perhaps the most conspicuous eggs of that tribe. The magpie is a strong bird, its eggs well concealed, and the nest fortified; but the colour of this egg is dull, like the rook's, woodcock's, &c. Two very similar eggs are those of the redstart and hedge-sparrow: the former builds in holes, the latter does not. The cuckoo very commonly selects the nest of the hedge-sparrow, a spotted brown egg among bright blue. Now, if we admit that the brightest white eggs are to be found in birds whose nest are the most concealed, as the kingfisher, wryneck, wrens, tits, sparrows, and especially the sand-martin, may we not rather infer that, because the interior of these nests is peculiarly dark, the bright white colour is convenient to the bird, to enable her to distinguish them? At all events we must regard M. Glöger's hypothesis as ingenious, rather than supported by facts."*[1]

EGRET (*Ardea Garzetta*, Linnæus.)

Ardea Garzetta, *Linn.* Syst. 1. p. 237. 13.—*Gmel.* Syst. 2. p. 628.—*Raii*, Syn. p. 99. 5.—*Will.* p. 206.—*Ib.* (Angl.) p. 280.—Ind. Orn. 2. p. 694. 64.—*Temm.* Man. d'Orn. 2. p. 572.—Egretta, *Briss.* 5. p. 431. 16.—*Ib.* 8vo. 2. p. 322.—L'Aigrette, *Buff.* Ois. 7. p. 372. t. 20.—Little Egret, Br. Zool. App. t. 7.—Arct. Zool. 2. No. 347.—*Lath.* Syn. 5. p. 90. 59.—*Walc.* Syn. 2. t. 30.—*Lewin's* Br. Birds, 4. t. 149.—*Don.* Br. Birds, 4. t. 98.—*Flem.* Br. Anim. p. 95.

This species of heron weighs about one pound; length near a foot. The bill is black; irides yellow; the bare space about the eyes green. The feathers on the back of the head are long, forming a pendant crest; two of the feathers are nearly five inches long, and narrow; the whole plumage is of a pure white; the feathers on the breast and scapulars are of a soft and loose texture; legs greenish black; claws black.

If we may judge from the bill of fare of the famous feast given by the Archbishop Nevil, these birds were plentiful in this country formerly, for no less than one thousand were in that list. It is, how-

[1] Brande's Journal for December, 1829, p. 441, Note.

ever, now become a very rare bird in this kingdom; one instance only of its being killed in these realms is on record by modern authors, and that in Anglesea. In the first year this bird is said to be slate-coloured; the second year grey, spotted with white. It is not uncommon in many parts of Europe and Asia; is found also in Africa, and in America about New York and Long Island, some of the West India islands, and Cayenne.

The feathers of this bird were formerly much esteemed as ornaments for the head-dress, especially those of the scapulars.

EIDER DUCK (*Somateria mollissima*, Fleming.)

Anas mollissima, *Linn.* Syst. 1. p. 198. 15.—*Gmel.* Syst. 2. p. 514.—Ind. Orn. 2. p. 845. 35.—*Temm.* Man. d'Orn. 2. p. 848.—Anas S. Cuthberti, *Raii*, Syn. p. 141. A. 3. F.—*Will.* p. 278. t. 77. F.—Somateria mollissima, *Flem.* Br. Anim. p. 119.—Anser lanuginosus, *Briss.* 6. p. 294. 13. t. 29, 30.—*Ib.* 8vo. 2. p. 440.—Oie à duvet, Eider, *Buff.* Ois. 9. p. 103. t. 6.—Great black and white Duck, *Edw.* t. 98. M. & F.—Eider, or Cuthbert Duck, Br. Zool. 2. No. 271. t. 95.—*Ib.* fol. 152. t. Q.—Arct. Zool. 2. No. 480.—*Will.* (Angl.) p. 362. t. 76.—*Lath.* Syn. 6. p. 470. 29.—*Ib.* Supp. p. 274.—*Walc.* Syn. 1. t. 66.—*Lewin's* Br. Birds, 7. t. 244.

Provincial.—Colk.

This species is nearly double the size of the common duck; length twenty-two inches. The bill is black; the top of the head is black, taking in the eyes, and continuing in a line on each side, where the feathers project on the bill almost as far as the nostrils; below the nape of the neck, on each side, the feathers are of a pale green; the rest of the head, neck, breast, back, scapulars, and wing coverts, are white; some of the coverts are long, and somewhat curved at the ends, falling over the quills, which are black; the under parts from the breast are black; tail black; legs dull green. In some the base of the wings and middle of the back is black.

These birds do not arrive to maturity in plumage till the third, or perhaps the fourth year.

In the first the back is white, and the usual parts, except the crown, black; but the rest of the body is variegated with black and white. In the second year the crown of the head is black, and the neck and breast spotted black and white. Other varieties have also been observed.

The female weighs about three pounds and a half; the general colour of the plumage reddish brown, barred with black; the hind part of the neck marked with dusky streaks; on the wings are two bars of white; belly deep brown, indistinctly marked with black; tail dusky; legs black.

The Eider Duck is rarely, if ever, seen in the south of England; it

breeds in the north of Scotland, particularly on the western isles, and on the Farn islands, on the coast of Northumberland, in the months of June and July. It lays five or six eggs of a pale greenish olive-colour. The nest is made on the ground, composed of marine plants, and lined with down of exquisite fineness, which the female plucks from her body. Sometimes a sufficient quantity is taken from one nest to fill the crown of a hat, the weight of which is not more than three quarters of an ounce. This is a considerable article of trade from the more northern countries. Its excessive lightness and elasticity admirably fits it for the purpose of stuffing quilts.

*Brunnich, who wrote an express treatise on the Eider Duck, informs us that their first object after pairing is to procure a suitable place for their nest, preferring the shelter of a juniper bush, where it can be had; and where there is no juniper, they content themselves with tufts of sea-grass, (*Arundo arenaria*, *Poa maritima*, *Elymus arenarius*, *&c.*,) bundles of sea-weed cast up by the tide, the crevices of rocks, or any hollow place which they can find. Some of the Iceland proprietors of breeding grounds, in order to accommodate them, cut out holes in rows on the smooth sloping banks, where they would not otherwise build, but gladly take possession of them when scooped out to hand.[1] It is not a little remarkable that, like several other sea-birds, they almost always select small islands, their nests being seldom, if ever, found on the shores of the main land, or even of a large island. The Icelanders are so well aware of this, that they have expended a great deal of labour in actually forming islands, by separating from the main island certain promontories joined to it by narrow isthmuses.

The reason of this preference of islands seems to be, security from the intrusion of dogs, cattle, and other land animals, to whose vicinity they have so great an aversion, that the Icelanders are careful to remove these, as well as cats, to a distance from their settlements. "One year," says Hooker, "a fox got over upon the ice to the island of Vidöe, and caused great alarm; he was, however, though with difficulty, taken, by bringing another fox to the island and fastening it by a string near the haunt of the former, by which means he was allured within shot of the hunter." The arctic fox (*Carus Lagopus*, LINNÆUS)[1] is traditionally said to have been introduced into Iceland by one of the Norwegian kings, to punish the disaffection of the inhabitants.[2]

Both the male and female Eider Ducks work in concert in building

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[1] Hooker's Tour in Iceland, p. 53. [2] Ib. p. 42.

their nest, laying a rather coarse foundation of drift grass, dry tangle, and sea-weed, which is collected in some quantity. Upon this rough mattress, the female Eider spreads a bed of the finest down plucked from her own breast, and by no means sparingly; but, as Brunnich informs us, heaping it up, so as to form a thick puffed roll quite round the nest. When she is necessitated to go in quest of food after beginning to sit, she carefully turns this roll of down over the eggs to keep them warm till her return. Martens says she mixes the down with moss;[1] but as this is not recorded by any other observer, I think it is not a little doubtful, particularly as in the localities chosen for nestling, she would find it no easy matter to procure moss. It is worthy of remark, that though the Eider Duck lays only five or six eggs, it is not uncommon to find more than even ten and upwards in the same nest, occupied by two females, which live together in perfect concord."[2]

The quantity of down in each nest is said, by Von Troil, to be about half a pound, which by cleaning is reduced to a half; by Pennant, who examined the Eiders' nests in the Farn islands, off Northumberland, it is only estimated when cleaned at three quarters of an ounce, and this was so elastic as to fill the crown of the largest hat. The difference of quantity in these two accounts, theoretically ascribed by the translator of Buffon, to difference of climate, may have arisen from the one being the first, and the other the second or third nest of the mother duck; for if the first nest be plundered of its down, though she immediately builds a second, she cannot furnish it with the same quantity as before; and if forced to build a third time, having then stript her breast of all she could spare, the male is said to furnish what is wanting, which is known as being considerably whiter than the female's. When the nest is not robbed, it is said that he furnishes none.[3]

The extraordinary elasticity of the down appears from what I have already said of three quarters of an ounce filling a large hat; and Pontoppidan says, that two or three pounds of it, though pressed into a ball, which may be held in the hand, upon being allowed to expand, will fill the foot-covering of a large bed. It is worthy of notice, however, that it is only the down taken from the nests which has this great elasticity, for what is taken from the dead birds is much inferior, being, as Pontoppidan says, "fat, subject to rot, and far from as light as what the female plucks to form a bed for its young."[4] It is on this

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[1] Recueil des Voyages du Nord, ii. 93.

[2] Pennant's Tour in Scotland, 8vo. ed. p. 36. [3] Brunnich.

[4] Pontoppidan, Nat. Hist. of Norway.

account that it is prohibited by the laws of Norway to kill the Eiders for their down.*[1]

The young have been taken from the Farn Islands, in hopes of their becoming domesticated, but all attempts have proved ineffectual; probably for want of proper food, which is said principally to consist of shell-fish.

The native regions of this bird extend from 45° north, to the highest latitudes yet discovered both in Europe and America; some wandering pairs having been known to breed on the rocky islands beyond Portland, in the district of Mayne, which is, perhaps, the most southern extent of their breeding place. Greenland and Iceland abound with them, and they are numerous on the coast of Labrador. They associate together in flocks, generally in deep water, diving for shell-fish, retiring frequently to the rocky shore to rest themselves, particularly on the approach of a storm. Their flesh is much esteemed by the inhabitants of Greenland, but tastes strongly of fish. * Wilson says that several attempts have been made to domesticate them, but hitherto without effect.*

ELK.—A name for the Wild Swan.

EMBER GOOSE.—A name for the Loon.

EMBERIZA (Linnæus.)—*A genus thus characterised. Bill conical, strong, hard, and sharp-pointed; the cutting edges (*tomia*) of both mandibles bending inwards, and compressed towards the point; the upper mandible narrower and smaller than the under one, and its roof furnished with a hard bony knob. Base of the mandibles (or gape) forming an angle, and rather open. Nostrils at the base round, and partly hidden by the small feathers. Feet having three toes before and one behind; the fore ones entirely divided. Wings with the first quills rather shorter than the second and third, which are the longest in each wing.*

EMMET HUNTER.—A name for the Wryneck.

ERNE.—A name for the Eagle.

EUROPEAN GOATSUCKER.—A name for the Nightjar.

EUROPEAN NUTHATCH.—A name for the Nuthatch.

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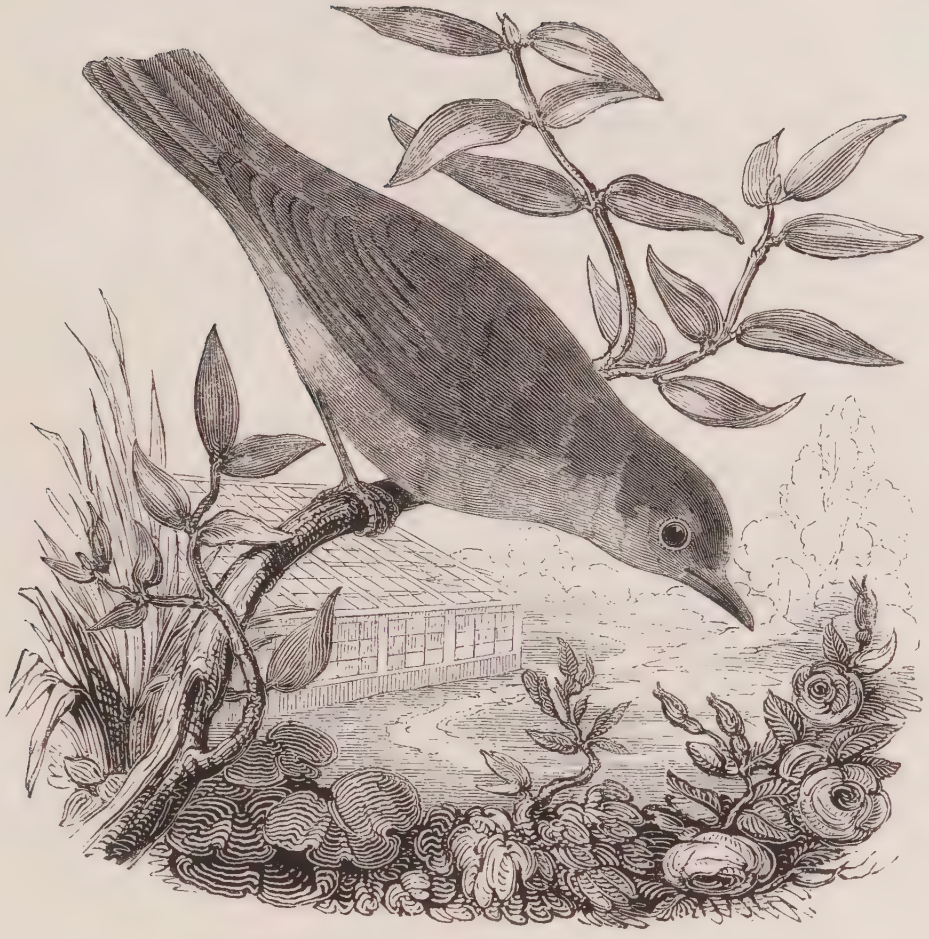
[1] Architecture of Birds, p. 75.



Fauvette.

FALCO (Linnæus.)—*A genus thus characterised. Head covered with feathers, bill strong, short, generally bending from its base, which is covered with a naked and coloured cere. Nostrils round or oval, lateral, and placed in the cere. Tongue in most species fleshy and divided by a slit. Upper orbit of the eye projecting. Legs feathered to the toes, or naked. Toes three forwards and one behind, the middle toe connected with the outer one, as far as the first joint. Claws short and very hooked, strong and retractile. Female superior in size to the male.*

FALCONIDÆ (Leach.)—*A group of birds of prey (*Raptores*, Illiger) which has been excellently subdivided by Mr. Vigors into five other groups, namely, eagles, (*Aquilina*,) hawks, (*Accipitrina*,) falcons, (*Falconina*,) buzzards, (*Buteonina*,) and kites, (*Milvina*.)*[1]

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[1] Zool. Journ. i. 336—340.

FALK.—A name for the Razor Bill.

FALLOW FINCH.—A name for the Wheatear.

FALLOW LUNCH.—A name for the Wheatear.

FAUVETTE (*Sylvia hortensis*, Bechstein.)

*Motacilla hortensis, *Linn.* Syst.—Sylvia hortensis, *Bechst.* Naturg. Deut. 3. p. 524. sp. 4.—*Ib.* Tasschenb. Deut. p. 169.—*Lath.* Ind. Orn. 2. p. 509. sp. 3.—*Turton*, Faun. 1. p. 44.—La petit Fauvette, *Buff.* pl. Enl. 579. f. 2.—Curruca hortensis, *Flem.* 70.—Bec-fin Fauvette, *Temm.* Man d'Orn. 1. p. 206.—Graue-Grasmuücke, *Meyer*, Tasschenb. Deut. 1. p. 224.—Braemsluiper, *Sepp.* Nederl. Vög. 2. t. p. 139.—Greater Pettychaps, *Mont.* Orn. Dict. and Supp.—Fauvette Pettychaps, *Bewick's* Br. Birds, 1. t. 218.—Garden Warbler, *Sweet's* Br. Warbler, 4.—*Selby*, pl. 46. fig. 44. p. 176.*

Length, six inches; weight above five drams. Bill dusky above; base of the under mandible yellowish; irides hazel; orbits white; general colour of the plumage above light brown, inclining to olive; below the ear is a dash of ash-colour; throat, neck, breast, and sides, dirty white, inclining to brown on the two last; belly and under tail coverts white; quills and tail feathers dusky, edged with olive; legs bluish brown.

This species of warbler, which is not very plentiful in England, was first discovered in Lancashire, and sent from thence to Dr. Latham by Sir Ashton Lever. However, since it has become better known, it is found to arrive in several of the southern counties about the latter end of April or beginning of May.

*Montagu informs us, says Selby, that it is found throughout the greater part of England; but he fixes the Tyne as its northern limit. In this boundary of its migration he is certainly mistaken, as I have seen it on the north of the river Tweed; and Syme informs us, that he has heard it on the Corstorphine Hills, two miles to the westward of Edinburgh; he also heard it in the Roslin Woods, but was not aware what bird it was until he read Montagu's description of it. It is a wild, shy, and timid bird, and it was with considerable difficulty he obtained a sight of it. He first heard its note among some low bushes, afterwards in a sloe-bush; but on his approaching nearer, the warbling ceased. On waiting a little, however, he again heard the strain, and at length perceived it perched on the topmost branch of a tree below him, and immediately knew it to be the bird from which the delightful melody proceeded, by the direction of the sound, and the motion of its little throat. Its song is very little inferior to that of the nightingale. Some of the notes are sweetly and softly drawn; others quick, lively, loud, and piercing, reaching the distant ear with a pleasing harmony, something like the whistle of the blackbird, but in a more hurried cadence; its song is frequently heard after sunset.

"It first visits us," says Sweet, "in the spring, about the latter end of April, or the beginning of May; and its arrival is soon made known by its very loud and long song. It generally begins very low, not unlike the song of the swallow, but raises it by degrees, until it resembles the song of the blackbird, singing nearly all through the day, and the greater part of the time it stays with us, which is but short, as it leaves us again in August. In confinement it will sing nearly all through the year if it be treated well. In a wild state, it is generally found in gardens and plantations, where it feeds chiefly on fruits, and will not refuse some kind of insects: it is very fond of the caterpillar of the cabbage butterfly, (*Pontia Brassicæ*, STEPHENS,) and I know no other bird of the genus that will feed on it. Soon after its arrival here the strawberries are ripe, and it is not long before it finds them out: the cherries it will begin before they are quite ripe; and I know not any kind of fruit or berry which is wholesome that it will refuse. It generally tastes the plums, pears, and early apples, before it leaves us; and, when in confinement, it also feeds freely on elder, privet, and ivy-berries; it is also partial to barberries, and soft apples or pears."[1] One of these birds, which I purchased in Paris, would devour in rapid succession, from six to ten of the full-grown caterpillars mentioned by Mr. Sweet, besides a copious dessert of grapes,—the whole meal being nearly a fourth of its own weight.*

It is chiefly found to inhabit thick hedges, where it makes a nest composed of goose-grass and other fibrous plants, flimsily put together, like that of the common white-throat, with the addition sometimes of a little green moss externally: the nest is placed in some bush near the ground. It lays four eggs, about the size of a hedge-chanter's, weighing about thirty-six grains, of a dirty white, blotched all over with light brown, most numerous at the larger end, where spots of ash-colour also appear.

In Wiltshire, where we have found this species not uncommon, it resorts to gardens in the latter end of summer, together with the white-throat and blackcap, for the sake of currants and other fruit.

The pettychaps of Mr. Pennant seems to correspond with this, except that the inside of the mouth of this is more inclined to yellow than red. That author also says, in Yorkshire his is called the beam-bird, from its nesting under beams in out-buildings. But as he quotes the *Motacilla hippolais* of Linnæus, we must conclude he means the lesser pettychaps of Latham's Synopsis, and the chiff-chaff of this work.

[1] Br. Warblers, p. 14.

But in either he must have been deceived as to its making a nest in out-buildings.

FEET OF BIRDS.—The large crooked talons of birds of prey, and their hooked beaks, are well formed for securing and tearing their victims. The formation of the feet of the woodpeckers, the toes being placed two forward and two backward, is well calculated for climbing; and the cuneiform shape of the extremity of their bills is suited to the purpose of cutting holes in decayed trees; their tongue is also wonderfully contrived to search out insects beyond the reach of their bill, by its great length, which is double that of the tongue at least. The wryneck has this singularity, as well as the like formation of the toes; which last is also found in the cuckoo: but neither of these birds is seen to climb up the bodies of trees, nor have either the stiff sharp-pointed feathers in the tail, as in the woodpecker, so admirably adapted to support them when in the act of hewing. * This agrees with the observations of an ingenious living naturalist, the Rev. Revett Shepherd. "The cuckoo," says he, "is furnished with two toes before and two behind, and yet is never known actually to climb, a convincing proof that such conformation does not necessarily bring with it the power of climbing, more especially when we consider that the nuthatch (*Sitta Europæa*) and the creeper, (*Certhia familiaris,*) have their toes placed in the usual manner, and yet run up and down trees with as much facility as the woodpeckers. The use of the *pedes scansorii,* as they evidently in this case conduce not to climbing, I judge to be this; it is well known that this bird will oftentimes sit by the half hour together on the bough of a tree, vociferating its loud and pleasing note; in doing this, it sits remarkably forward, and appears in constant agitation, continually moving its body up and down with great elegance; now, as it sits so forward, while using this exertion, it would be liable to lose its balance and quit its hold, had it only one toe behind; whereas, by the contrivance of two, it is enabled strongly to adhere to the branch.[1]*

The legs and feet of aquatic birds are wonderfully formed for accelerating their motion in that element, which is their greatest security. The bone of the leg is sharp, and vastly compressed sideways; the toes, when the foot is brought forward, close in behind each other in such a manner as to expose a very small surface in front, so that, in the action of swimming, very little velocity is lost in bringing the legs forward; this is very conspicuous in the diver. Some aquatic birds are web-

[1] Linn. Trans. xii., 518.

footed before the whole length of the toes, as in the ducks; others only half the length of the toes, like the avoset. Some again have all four toes webbed, as in the cormorant; others whose feet are furnished with a fin-like membrane on each side of the toes; these are either plain, as in the grebe, or lobed, as in the coot and phalarope. There are also some who swim and dive well, whose toes are long and slender, and not furnished with webs or fins, such as the water-hen and rail; but these live as much on land as in water. The gulls and terns, although web-footed, seem incapable of diving; the latter, indeed, we never observed to settle on the water; the former is so buoyant that it floats elegantly on the surface. The avoset, whose feet bespeak it an inhabitant of the water, does not seem to have the power of swimming; the water-ouzel, on the other hand, has not the least appearance of an aquatic, nor can it swim; but it will dive, and remain a long time under water. The serrated claw in the heron and nightjar is a singular structure, which we have not discovered the use of. The bill as well as the feet of birds, makes one of the strong natural divisions; but these are described under the head of each genus.

FELTYFARE.—A name for the Fieldfare.

FEN GOOSE.—A name for the Goose.

FERN OWL.—A name for the Night Jar.

FERRUGINOUS DUCK.—*A variety of the White Eye, described by Montagu as a distinct species.*

FIELD DUCK.—A name for the Little Bustard.

FIELDFARE (*Turdus pilaris*, LINNÆUS.)

Turdus pilaris, *Linn.* Syst. 1. p. 291. 2.—Faun. Suec. No. 215.—*Gmel.* Syst. 1. p. 807.—*Lath.* Ind. Orn. 1. p. 330. sp. 11.—*Raii*, Syn. p. 64. A. 3.—*Will.* p. 38. t. 37.—La Litorne, *Buff.* Ois. 3. p. 301.—*Temm.* Man. d'Orn. 1. p. 163.—Fieldefare, or Feldefare, Br. Zool. 1. No. 106.—*Ib.* fol. 90. t. P. 2. f. 1.—Arct. Zool. 2. p. 340. A.—*Will.* (Angl.) p. 18. t. 37.—*Albin*, 1. t. 36.—*Haye's* Br. Birds, t. 31.—*Lewin's* Br. Birds, 2. t. 60.—*Lath.* Syn. 3. p. 24. 11.—*Pult.* Cat. Dorset. p. 10.—*Walc.* Syn. 2. t. 200.

Provincial.—Pigeon Fieldfare. Felty-fare.

This species of thrush is in size between that of the missel and the throstle; length ten inches; weight four ounces. The bill is yellowish, black at the point; irides hazel; the head and hind part of the neck cinereous, the first spotted with black; the back and lesser coverts of the wings chestnut-brown; rump ash-colour; quill-feathers dusky brown, with paler edges; the fore part of the neck, breast, and sides, yellowish, streaked with dusky; throat white; belly and vent the same; tail dusky black; the middle feathers dashed with cinereous; legs black.

The female has less of the rufous tinge on the breast; in other respects like the other sex.

This is a migrative species, visits us together with the redwing in large flocks in October, and frequently remains till the beginning of April. With us its principal food is the fruit of the hawthorn and other berries, worms, and insects. In very severe weather they migrate further south; but a sudden fall of snow sometimes deprives them of the power of flying across the seas to a warmer climate; in which case thousands are starved. In the winter of 1798, a very heavy snow fell to the northern and eastern parts of this country, when prodigious flocks appeared in the west of England; but as that part was soon after covered with snow, which lasted on the ground for a considerable time, they became too weak to shift their quarters to a more southern climate, and thousands were picked up starved to death in Devonshire. Stares and redwings suffered the same fate. If severe weather comes on more gradually, and food becomes scarce, few are seen with us after Christmas; but on their return northward to breed, they appear again in small flocks. This bird with us roosts on the ground, and rarely perches for that purpose. Linnæus says it builds in high trees in Sweden, and frequents the places where junipers grow. It is also found, during the warmer months, in Russia, Siberia, and Norway, where they undoubtedly breed.

"" The extensive low lands," says Mr. Knapp, " of the river Severn, in open weather, are visited by prodigious flocks of these birds; but as soon as snow falls, or hard weather comes on, they leave these marshy lands, because their insect food is covered, or become scarce, visit the uplands, to feed on the produce of the hedges, and we see them all day long passing over our heads in large flights on some distant progress, in the same manner as our larks, at the commencement of a snowy season, repair to the turnip fields of Somerset and Wiltshire. They remain absent during the continuance of those causes which incited their migration; but as the frost breaks up, and even before the thaw has actually commenced, we see a large portion of these passengers returning to their worm and insect food in the meadows, attended probably by many that did not take flight with them; though a great number remain in the upland pastures, feeding promiscuously as they can. In my younger days, a keen unwearied sportsman, it was always observable, that in hard weather these birds increased prodigiously in number in the counties far distant from the meadow lands, though we knew not the reason; and we usually, against this time, provided tempting bushes of haws, preserved in a barn, to place in frequented hedges, near our secret standings. When the Fieldfare first arrives, its flesh is dark, thin, and scurfy; but, having fed a little time in the hedges, its

rump and side-veins are covered with fat. This is, in part, attributable to suppression of perspiration by the cold, and partly to a nutritive farinaceous food; its flesh at the time becoming bluish and clean. The upland birds are in this state, from, perhaps, the end of November till the end of January, according as the hedge-fruit has held out; and, at this period, they are comparatively tame: afterward, though the flights may be large, they become wild; and the flesh, assuming its darkness, manifests that their food has not been farinaceous. The distant foreign migrations, which have been stated to take place from the meadows of the Severn, I believe to be only these inland trips; and that the supposed migrators returned to those stations, fat and in good condition, owing to their having fed, during their absence, on the nutritious berry of the white-thorn. I have several times seen the fruit on our hedges refused by these birds, and this too in no very temperate season, but, in all these cases, the summer had been ungenial; the berries had not ripened well, they were nipped by the frosts of October, and hung on the sprays dark in colour, small, and juiceless in substance. The summer of 1825 produced the finest and largest haws I ever remember. They were in general of a bright red hue, and filled with farinaceous pulp; and in consequence, though the season was uncommonly mild and open, long before Christmas little wandering parties of these birds consumed the whole of them.

"Perfectly gregarious as the Fieldfare is, yet we observe every year in some tall hedge-row or little quiet pasture, two or three of them that have withdrawn from the main flocks, and there associate with the blackbird and the thrush. They do not appear to be wounded birds, which from necessity have sought concealment and quiet, but to have retired from inclination; and I have reason to apprehend that these retreats are occasionally made for the purpose of forming nests, though they are afterwards abandoned without incubation, as I have now before me the egg of a bird which I believe to be that of a Fieldfare, taken from a nest somewhat like that formed by the song-thrush, in 1824. Its colour is uniform; a rather pale blue; it is larger than that of the thrush, obtuse at both ends, and unlike any egg produced by our known British birds. These retiring birds linger with us late in the season, after all the main flights are departed, as if reluctant to leave us; but towards the middle or end of April these stragglers unite, form a small company, and take their flight."*

FIELDLARK.—A name for the Skylark.

FIG EATER.—A bird so called by Willughby, who says it is found in Yorkshire, where it is called the beam-bird. Mr. Pennant

makes it the chiff-chaff; but that cannot be, if it makes, as it is said to do, its nest under beams of old buildings. Certainly it is not the Fig Eater of the continent.

FINCH (*Fringilla*, ILLIGER.)—A genus of birds.

FISHING EAGLE.
FISH HAWK. } —*Names for the Osprey.*

FISSIROSTRES (CUVIER.)—*A group of perchers, (*Insessores*, VIGORS,) having cleft or notched bills.*

FLIGHT OF BIRDS.—*The flight of birds differs exceedingly: some fly by jerks, closing their wings every three or four strokes, which gives them an undulated motion, very conspicuous in the woodpeckers and wagtails, and in most small birds; others fly smooth and even; and some appear to buoy themselves in the air without perceptible motion of the wings, such as the kite and kestril hawk. Most birds fly with their legs contracted and neck extended; but there are some whose length and weight of neck makes it necessary to contract it in flight, in order to bring the centre of gravity on the wings; to aid which the legs are also extended behind, as in the heron and bittern; others fly with extended neck, but are obliged to throw out their legs behind, as in the duck, goose, and other water-fowl.

The rapidity with which a falcon flies in pursuit of its quarry is inconceivably great. "The flight of a strong falcon," says Doctor Shaw, "is wonderfully swift. It is recorded, that a falcon belonging to a Duke of Cleve, flew out of Westphalia into Prussia in one day; and in the county of Norfolk, a hawk has made a flight at a woodcock near thirty miles in an hour."

But what are these compared to the actual velocity and continuance of the flight of a falcon, that is recorded to have belonged to Henry IV., King of France, which escaped from Fontainbleau, and in twenty-four hours after was found in Malta, a space computed to be not less than 1350 miles? a velocity equal to fifty-seven miles an hour, supposing the hawk to have been on wing the whole time. But as such birds never fly by night, and allowing the day to be at the longest, or to be eighteen hours light, this would make seventy-five miles an hour. It is probable, however, that he neither had so many hours of light in the twenty-four to perform the journey, nor that he was retaken the moment of his arrival, so that we may fairly conclude much less time was occupied in performing that distant flight.

Those who have attended to the flight of birds, know that a sparrow will fly at the rate of more than thirty miles in an hour. It is indeed extremely difficult to ascertain the actual distance a falcon may fly in

a given space of time, when in pursuit of its quarry. But Colonel Thornton, speaking of the rapidity of the flight of a falcon in pursuit of a snipe, estimates the space of nine miles in eleven minutes, independent of the numerous turns; and the force with which they strike, in the utmost of their velocity, is so great, that the Colonel has known a hawk belonging to him cut a snipe in two parts.

The rapidity with which a hawk, and many other birds, occasionally fly, is probably not less than at the rate of one hundred and fifty miles an hour, when either pursued or pursuing, and their powers fully exerted; and certainly one hundred miles is not beyond a fair computation for migratory continuance, not only of the hawk, but of the woodcock, snipe, and other similar birds. The eider duck's usual flight has been ascertained to be at the rate of ninety miles an hour, as before stated in the history of that bird.

Amongst quadrupeds, the horse is perhaps as fleet as any, and yet the velocity falls very short of that of a bird; the famous racer, *Hambletonian*, covered a space of four miles in eight minutes, which is but thirty miles in an hour, if it could be continued. *Eclipse* is said to have gone at the rate of a mile in a minute for a very short distance.*

FLUSHER (*Lanius Collurio*, Linnæus.)

Lanius Collurio, *Linn.* Syst. 1. p. 136. 12.—*Gmel.* Syst. p. 200.—*Lath.* Ind. Orn. 1. p. 69. 11.—*Briss.* 2. p. 151. sp. 4.—Lanius minor rufus, *Raii*, Syn. p. 18. A. 4.—*Will.* p. 54.—Merulæ congener alia, *Raii*, Syn. p. 67. 13.—Lanius spini Torquens, *Bechst.* Naturg. Deut. 2. p. 1335.—La Pie grièche Ecorcheur, *Buff.* Ois. 1. p. 304. t. 21.—*Ib.* pl. Enl. 31. f. 2. male, and fig. 1. female, under the title of Pie Grieche rousse femelle.—*Temm.* Man. d'Orn. 1. p. 147.—*Le Vaill.* Ois. d'Afric. 2. pl. 64. f. 1 & 2.—Rothrückeger Vurger, *Meyer*, Tasschenb. Deut. 1. p. 90.—Red-backed Shrike, Br. Zool. 1. No. 72.—Arct. Zool. 2. No. 131.—*Lewin's* Br. Birds, 1. t. 30.—*Lath.* Syn. 1. p. 167. 25.—*Ib.* Supp. 52.—*Mont.* Orn. Dict.—*Ib.* Supp.—Pult. Cat. Dorset. p. 4.—*Bewick's* Br. Birds, 1. p. 60—*Shaw's* Zool. 7. p. 315.—*Selby*, fig. 2. pl. 43. fig. 2. 3.—*Flem.* Br. Anim. p. 62.

Provincial.—Murdering Pie. Jack Baker. White Whiskey John.*

This species weighs eight drams; length seven inches. Bill black; irides hazel; the upper part of the head and neck and the rump of a fine light grey; the forehead is black, which extends in a streak through the eyes; the back, scapulars, and coverts of the wings, ferruginous; quills brown, slightly edged on the outer webs with a lighter colour; from the throat downwards of a blossom colour, palest about the vent; the tail is composed of twelve feathers, longest in the middle; these are more or less white at the base, black towards the end, and slightly tipped with white, except those in the middle, which are wholly black; the shafts are black throughout, as also are the legs.

The female weighs two drams more. The whole upper parts of a

ferruginous brown; the back of the neck dashed with grey; the base of the upper mandible whitish; beneath the eye a brown streak; breast and sides dirty white, marked with numerous semicircular dusky lines; middle of the belly and vent white; the quills and tail-feathers brown; the outer web of the exterior feather of the latter white.

The Flusher visits us in May, and departs in September; chiefly haunts inclosed moist situations, and makes its nest in some thick hedge, composed of moss and fibrous roots, put together with wool, and lined with hair. It lays five or six eggs of a bluish-coloured white, with cinereous-brown spots, most at the larger end; sometimes the eggs are white, with dusky spots; their weight from forty to fifty grains. When it has young, and you approach the nest, the birds are clamorous, making a chattering noise. Its principal food is insects, with which it feeds the young, particularly the chaffer, or dorbeetle. These it transfixes on a thorn, tears off the body, leaving the clytra, wings, and head behind. The male has also a chirping note, not very unlike the house-sparrow; and we have heard it make a sort of a song.

It appears to be a local species; is not uncommon in the north of Wiltshire, and part of Gloucestershire and Somersetshire, particularly about Bristol, where we have taken its young, and kept them for some time. These lived in amity for about two months, when violent battles ensued, and two out of four were killed. The other two were chained in the manner goldfinches frequently are; they were extremely docile, would come to the call for the sake of a fly, of which they were extremely fond; when raw meat was given them, would endeavour to fasten it to some part of their open cage in order to tear it; would eat mice and small birds cut in pieces, feather, fur, and bones, disgorging the refuse like the hawk tribe.

One was killed by swallowing too large a quantity of mouse-fur, which it could not eject, and was strangled; the other became so fat, that it expired in a fit while it was feeding on insects. The young resemble the female till the following spring. It is found in Russia and France, and is common in Italy. In Egypt it is called Dagnousse. * Selby has not been able to trace it farther north than Yorkshire and Cumberland.*

FLYCATCHERS (*Muscicapidæ*, Vigors.)—A family of Perchers (*Insessores.*)

FOOLISH GUILLEMOT.—A name for the Willock.

FRECKLED HERON.—Supposed to be the young of the Squacco Heron.

FRENCH PIE.—A name for the Poppinjay.

FRINGILLA (Illiger.)—* Finch, a genus thus characterised. Bill straight and perfectly conical, short, hard, and sharp at the point; the ridge of the upper mandible rounded, and frequently advancing in an angle upon the forehead, the cutting edges of the under mandible bending a little inwards. Nostrils situated behind the horny bulging base of the bill, round, and hidden by the small frontal feathers. Wings short, having the third or fourth quill feather the longest. Legs with the shank as short as, or shorter than, the middle toe, and with the toes divided.*

FRINGILLIDÆ (Vigors.)—* Finches, a family of Perchers. (*Insessores*, Vigors.)

FULICA (Brisson.)—* Coot, a genus thus characterised. Bill of middle size, strong, conical, straight, compressed, higher than broad at the base; ridge advancing upon the forehead, and expanding into a naked plate; points of both mandibles compressed and of equal length, the upper slightly curved, and widened at the base. Nostrils at the side, in the middle of the bill, slit lengthwise, half closed by a membrane which covers the widening, pierced from part to part. Legs long, slender, naked above the knee; three toes before and one behind; all the toes very long, and re-united at their base, and furnished on the sides with a scolloped membrane. Wings of middle size, the first quill shorter than the second and third, which are the longest in the wing.*

FULMAR (*Procellaria glacialis*, Linnæus.)

Procellaria glacialis, *Gmel.* Syst. 2. p. 562.—*Lath.* Ind. Orn. 2. p. 823. sp. 9.—*Temm.* Man. d'Orn. 2. 802.—*Flem.* Br. Anim. p. 135.—Procellaria cinerea, *Briss.* 6. p. 143. 2. t. 12. f. 2.—*Ib.* 8vo. 2. p. 399.—Fulmar, on Petrel-puffin grisblanc, *Buff.* Ois. 9. p. 325. t. 22.—Wagellus Cornubiensium Mallemucke, *Raii*, Syn. p. 130. A. 13.—Haffhert, seu Equus marius, *Will.* p. 306.—*Ib.* (Angl.) p. 395.—Fulmar Petrel, Br. Zool. 2. No. 257.—*Ib.* fol. 145. t. M. 2.—Arct. Zool. 2. No. 461.—*Lath.* Syn. 6. p. 403. 9.—*Lewin's* Br. Birds, 6. t. 217. *Walc.* Syn. 2. t. 89.

This species of petrel is about the size of the common gull. The bill is yellow, very strong, and much hooked at the end: the nostrils are placed in a convex sheath; the head, neck, tail, and whole under side of the body white; the back and coverts of the wings ash-colour; quill-feathers dusky; the legs yellowish; back-toe wanting, instead of which is a sort of spur. The Fulmar is not frequently seen on our southern coasts: we never remember but one instance, and that was in South Wales.

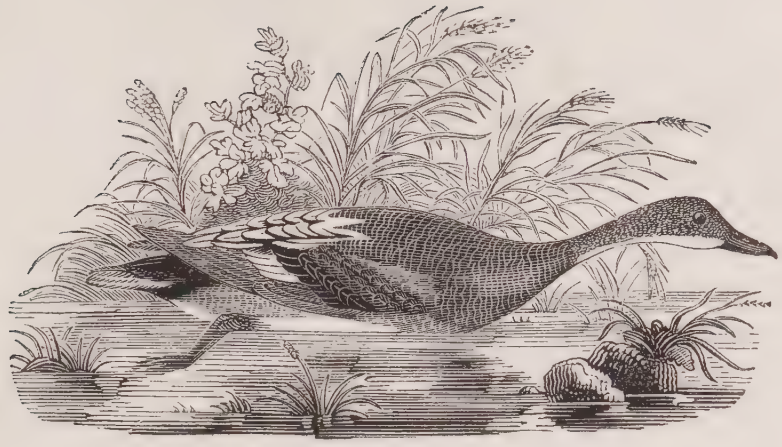
It is not uncommon in some of the islands off the north of Scotland. At St. Kilda it breeds, and supplies the inhabitants with a vast quantity of oil, which is used for culinary as well as medical purposes. Speaking of those which breed on that island, Pennant says, "no bird is of

such use to the islanders as this; the Fulmar supplies them with oil for their lamps, down for their beds, a delicacy for their tables, a balm for their wounds, and a medicine for their distempers." He adds, "that it is a certain prognostication of the change of wind; if it come to land no west wind is expected for some time, and the contrary when it returns and keeps to sea."

Its food is entirely fish, particularly that of the most oily nature, by which means it is always charged with oil, and has the power of ejecting it with force from its bill, a mode of defence peculiar to the petrel genus. It is said to lay one large white egg the latter end of May. A very complete skeleton of this bird has been presented to us by Colonel Templer, which was given to him by a master of a Newfoundland trader. This bird, which seems to be known only by the title of John Down by the fishermen, attends the fishing vessels on the banks of Newfoundland, and feeds on the liver and offal of the cod-fish that is thrown overboard. It is taken by means of a hook baited with a piece of liver, and being stretched at length to a stick, it is sunk under water, and in half an hour, (as the informant declared,) is completely skeletonized by what the sailors call sea-lice. Some of these insects were procured for us in Newfoundland, and did not turn out to be what is usually denominated sea-louse, (*Oniscus*,) but *Cancer Locusta*, the same in every respect as that found on our coast.

FULVOUS.—*A colour which may be described as brownish, or reddish yellow, or tawny.*

FURZE CHAT.—A name for the Whinchat.



Gadwall.

GADWALL (*Anas strepera*, Linnæus.)

Anas Strepera, *Linn.* Syst. 1. p. 200. 20.—*Gmel.* Syst. 2 p. 520.—Ind. Orn. 2. p. 859. 69.—*Briss.* 6. p. 339. 8. t. 33. f. 1.—*Ib.* 8vo. 2. p. 452.—*Temm.* Man. d'Orn. 2. p. 837.—*Flem.* Br. Anim. p. 124.—Anas platyrhynchos, *Raii*, Syn. p. 145. A. 2.—*Will.* p. 287.—Chipeau, *Buff.* Ois. 9. p. 187. t. 12.—Gadwall, or Grey, Br. Zool. 2. No. 288.—*Ib.* fol. p. 157. t. Q. 3.—Arct. Zool. 2. p. 575. I.—*Will.* (Angl.) p. 374. t. 72.—*Lewin's* Br. Birds, 7. t. 258.—*Lath.* Syn. 6. p. 515. 16.—*Walc.* Syn. 2. t. 68.—*Pult.* Cat. Dorset. p. 21.—Linn. Trans. 4. p. 111. t. 13. f. 10.—*Bewick's* Br. Birds, 2. p. 13.

Provincial.—Rodge. Grey.

This species of duck is about the size of a widgeon; length nineteen inches. The bill is two inches long, flat, and black; head, and most part of the neck, reddish brown, spotted with black; sides of the head, throat, and fore-part of the neck, rufous white, spotted with brown; the lower part of the neck, upper part of the back, breast, and scapulars, elegantly marked with black and white curved lines; lower part of the back dusky brown; rump, upper and under tail coverts, black; belly dirty white; sides and thighs marked with light brown lines; the coverts on the ridge of the wing are pale reddish brown; beneath that of a purplish red; the lowest order of a deep black; greater quills dusky; on the lesser quills is a white patch; the tail ash-coloured, edged with white; legs orange.

The female has the same markings in the wings, but not near so bright in colour; the breast reddish brown, spotted with black; the feathers on the neck, back, and rump, edged with pale reddish brown; the curved lines on the neck and breast of the male are wanting in this sex. During the many years we have attended to the subject of Ornithology, we have never been able to procure a fresh specimen of this duck. The *trachea* which, as it becomes better known, forms a strong

specific character in this tribe of aquatic birds, has been described by Latham, in a paper in the Linnæan Transactions. "The windpipe of the male," he says, "has a bony bladder, and arch somewhat like that of the pintail duck, but the globular part not so large." We may observe, too, that it adheres to the side of the arch quite to the bottom, whereas in the pintail it is attached to the side of the arch by a small portion only.

This beautiful duck visits us in winter, but does not appear to be a plentiful species. It is supposed to breed in Sweden, and probably in Russia and Siberia, being found in those parts. *Wilson says he has met with it in distant parts of the United States.*

It is said to be a great diver; feeds chiefly by night, concealing itself amongst the reeds and rushes during the day. It makes a noise not unlike that of the mallard, but louder.

GAIRFOWL.—A name for the Awk.

GALLINACEOUS (Linnæus.)—Poultry, a group of birds (*Gallinæ*, Auctores,) and (*Rasores*, Illiger.)

GALLINULA (Latham.)—*A genus thus characterised. Bill shorter than the head, compressed, conical, higher than broad at the base; ridge advancing upon the forehead and dilating in some species into a naked plate; point of both mandibles compressed, and of equal length: the upper slightly curved, the nasal groove very large, the under forming an angle. Nostrils at the sides, in the middle of the bill, slit lengthways, half shut by a membrane which covers the nasal groove, and pierced from part to part. Legs long, naked above the knee; three toes before and one behind, the fore toes long, divided, and furnished with a very narrow border. Wings of middle size, the first quill shorter than the second and third which are longest in the wing. The latter does not hold in some foreign species.*

GALLINULE (*Gallinula chloropus*, Latham.

Fulica chloropus, *Linn.* Syst. 1. p. 258. 4.—*Gmel.* Syst. 2. p. 698.—Gallinula chloropus, Ind. Orn. 2. p. 770. 13.—Gallinula chloropus major, *Raii*, Syn. p. 113. A. 1.—*Ib.* p. 190. 15.—*Will.* p. 223. t. 58.—*Briss.* 6. p. 3. 1. t. 1.—*Ib.* 8vo. 2. p. 358.—Poule d'eau, *Buff.* Ois. 8. p. 171. t. 15.—Common Water-hen, or Moor-hen, *Albin*, 2. t. 71.—*Ib.* 3. t. 91.—*Will.* (Angl.) p. 312. t. 58.—Common Gallinule, Br. Zool. 2. No. 217. t. 77.—*Ib.* fol. 131. t. L. 1.—Arct. Zool. 2. No. 411.—Supp. p. 69.—*Haye's* Br. Birds, t. 30.—*Lath.* Syn. 5. p. 258. 12.—*Lewin's* Br. Birds, 5. t. 191.—*Pult.* Cat. Dorset, p. 16.—*Walc.* Syn. 2. t. 169.—*Don.* Br. Birds, 5. t. 110.—Brown Gallinule, *Lath.* Syn. 5. p. 260.

YOUNG.

Speckled, Yellow Legged, and Piping Gallinule, *Lath.* Syn. 5. p. 266. Nos. 19, 20, 21.

Provincial.—Moor-hen. Marsh-hen. Cuddy. Moor-coot. Stank-hen.

This bird weighs from fourteen to sixteen ounces; length fourteen inches; the bill is red towards the base; greenish at the point; irides reddish hazel; the crown of the head and whole upper parts are of a deep olive brown; the under parts cinereous; ridge of the wing and under tail coverts white; in some there are two or three white feathers at the base of the thigh; legs and toes dusky green; above the knee is a garter of red.

The female is less than the male, and wants the red on the bill. This mark, however, is most conspicuous in the spring.

This is a very common species, found in most sedgy and slow rivers, or streams of water, and frequently in ponds abounding with weeds, where it can lie concealed.

Its food is principally insects, seeds, and vegetable productions of various sorts, for which it frequently quits the water. It runs fast, and is equally expert in swimming and diving, although the feet do not seem calculated for the latter. It is continually flirting up the tail as it runs or swims, at which time the white underneath is very conspicuous.

The nest is made of flags or rushes, which is placed near the surface of the water on some branch of a tree or bush; sometimes on the stump of an old willow. The eggs are nine or ten in number, but most commonly five or six, of a light yellowish brown, marked with rust-coloured spots. The young are hatched in about three weeks, and instantly take the water: they are covered with a black down. When disturbed will frequently perch. It flies badly, with its legs hanging down. In the act of diving the wings are used as fins, like most others of the aquatic tribe.

The breed of this bird is very much destroyed by summer floods in our rivers. By reason of their nests being placed so near the water, the eggs are continually swept away. The young are frequently destroyed by fish of prey; and we have taken an old bird out of the stomach of a pike. It is found in many parts of Europe and America.

GALLWELL DRAKE.—A name for the Land Rail.

GAMBET (*Totanus Calidris*, Bechstein.)

Tringa gambetta, *Linn.* Syst. 1. p. 248. 3.—*Gmel.* Syst. 2. p. 671.—Ind. Orn. 2. p. 728. 9.—Gambetta, *Raii*, Syn. p. 107. 2.—*Will.* p. 222.—*Ib.* (Angl.) p. 300. Gallina erythropus, *Will.* p. 221.—Totanus ruber, *Briss.* 5. p. 192. 4.—*Ib.* 8vo. 2. p. 262.—Red Shank, *Flem.* Br. Anim. p. 102.—*Mont.* Supp.—Red-legged Horseman, *Albin*, 2. t. 68.—Gambet Sandpiper, Br. Zool. 2. No. 198. t. 70.—Arct. Zool. 2. No. 394.—*Lath.* Syn. 5. p. 167. 9.—*Lewin's* Br. Birds, 5. t. 168.—*Bewick's* Br. Birds, 2. p. 113.—Striated Sandpiper, *Lath.* Syn. 5. p. 176.

This species, we are informed by Mr. Pennant, has been shot on the coast of Lincolnshire. He describes it to be the size of the green-

shank; the head, back, and breast, cinereous brown, spotted with dull yellow; the coverts of the wings and scapulars cinereous, edged with yellow; the primores dusky, bordered with yellow; legs yellow.

Montagu supposed that it might be found to turn out a variety of the ruff.

Dr. Latham adds, that the bill is of a reddish colour, with a black tip; the irides yellowish green.

This bird seems to have been rarely met with in England. Said to be known in France, but is esteemed there a rare bird. Is spoken of as inhabiting Scandinavia and Iceland.

Temminck says it is nowhere so abundant as in Holland, and is migratory, at least from the inland marshes to the coast.

GAME.—The birds so termed in our laws, are now Grouse, Heathfowl, Landrails, Quails, Partridges, Pheasants, Snipes, and Woodcocks. Other birds were formerly deemed game.

GANNET (*Sula alba*, MEYER.)

Pelicanus bassanus, *Linn.* Syst. 1. p. 217. 5.—*Gmel.* Syst. 2. p. 577.—Ind. Orn. 2. p. 891. 26.—Pelicanus maculatus, *Gmel.* Syst. 2. p. 579. sp. 32.—Anser bassanus, *Raii*, Syn. p. 122. A. 2.—*Will.* p. 247. t. 63.—Sula Hoieri, *Raii*, Syn. p. 123. 5.—*Will.* p. 249.—Sula bassana, and Sula major, *Briss.* 6. p. 503. 5. t. 44.—*Ib.* 8vo. 2. t. 492.—*Ib.* 2. p. 497.—Fou de Bassan, *Buff.* Ois. 8. p. 376.—Soland Goose, *Will.* (Angl.) p. 328. t. 63.—*Albin*, 1. t. 86.—*Flem.* Br. Anim. p. 118.—Gannet, Br. Zool. 2. No. 293. t. 103.—*Ib.* fol. 160. t. L.—Arct. Zool. 2. No. 510.—*Lath.* Syn. 6. p. 608. 25.—*Lewin's* Br. Birds, 7. t. 265.—*Walc.* Syn. 1. t. 94.—*Pult.* Cat. Dorset. p. 22.—Great and Spotted Boby, *Lath.* Syn. 6. p. 610. 14.

This species weighs about seven pounds; length full three feet; breadth above six. The bill is about six inches long, nearly strait, except towards the point, where it declines a little; the edges of the mandibles are sharp, and a little jagged irregularly; the colour dirty yellowish white; near the base of the upper mandible is a sharp process and suture, which enables the bird to move it a little in the act of swallowing large fish; along the sides are two longitudinal grooves running the whole length, but no nostrils; the irides are pale yellow; round the eyes the skin is bare, and of a blue colour; the chin is destitute of feathers, and of a dusky colour, capable of great distention, forming a kind of pouch; the whole plumage is white, except the crown of the head, which is buff colour; the tail feathers are twelve, strong and pointed. When alive, the bill is of an elegant bluish grey colour; the legs singularly marked, of a dusky colour, with the front bluish yellow, which divides at the feet, and forms a line of the same colour; along the ridge of the two forward toes the uniting membrane is unusually strong, and nearly as transparent as glass.

This bird is said to go as far south as the Tagus, and according to Acerbi, is found as far north as the Gulf of Bothnia. It is found plentiful on some of the northern coasts, particularly the Orkneys and the Bass Island, in the Frith of Forth. By an old Scottish law, the proprietor of this has a right to visit the neighbouring isles, and drive away the Gannets, in order that they may return to his domain, being considered as his sole property; from which he is said to derive a considerable profit by taking the young and sending them to market. In autumn they leave those places, and pursue the herrings and pilchards round our coast, returning to their usual haunts in the spring. During their winter migration they are frequently found off the coast of Cornwall, and are seen in every part of the British and Irish Channel, generally keeping far out to sea. Mr. Pennant mentions a variety of this bird having been killed in Caernarvonshire, to which he gave the name of Sulla. The young birds, during the first year, and perhaps longer, are dusky, speckled with white; the nest, which is composed chiefly of sea-weed, is generally placed upon the most inaccessible parts of the highest rocks; the egg is white, very like that of the cormorant, but rather larger: those sent to us by a Scottish friend are by no means so large as the egg of a goose, and weighing about three ounces and a quarter each.

This bird takes its prey by darting down upon it with great velocity from a considerable height, but is incapable of diving, or at least it does not appear that any exertion or alarm can force it to immerse. Upon the water it swims as buoyant as a gull. When offered fish they will take it, but will never go into a pond after it; and from every appearance of their actions on water, to which they will only go from compulsion, they cannot procure the fish beyond the extent of their neck.

During the winter, and as late as the month of April, they have been frequently observed in the English channel; Mr. Pennant was therefore misinformed when he stated that they retire with the pilchards in the month of November. What their particular object may be for remaining so long in the channel it is difficult to determine, but we have had them brought to us by fishermen in the months of February, March, and April; from whom we learn that they are only occasionally seen, and from their actions appeared busied in fishing; but what the shoal of fish was that they were apparently following, could not be discovered.

In the month of February, 1808, and in March, the preceding year, many were taken alive; and more might have been captured, for they

rise at certain times from the water with difficulty, at which time they are easily run down by a boat. When surprised, they defend themselves obstinately and powerfully, striking with their bills, and pinching very severely. It should seem, from the accounts we have been able to collect from this unintelligible sort of beings, the fishermen, that the Gannets cannot rise from the water, but against the wind, and when that advantage is taken of them, they are easily captured. This defect, however, is certainly not constant, but only occasional, as we perceive in the cormorant, divers, grebes, and many piscivorous birds at particular times, when they are both gorged with prey, and their feathers have become wet with the exertion of procuring it. These, however, most frequently baffle their pursuers by immersion and long continuance under water. The Gannet, on the contrary, has no such resource; when his stomach is replete with fish, and his plumage saturated with water, occasioned by the concussion on its surface, by his rapid descent upon his prey, his only alternative is his oars upon the bosom of the deep, for he cannot dive, by reason of his body being so much specifically lighter than that element.

A Gannet brought to us alive on the twentieth of March, in the year 1807, took no kind of food for seven days; it was then crammed with both fish and flesh, and soon after began to devour all white fish greedily, but did not choose to pick up even a plaise when the back was uppermost.

It was remarked, that when the bill was held so as to close the mandibles for a considerable time, respiration became laborious, there being no nostrils. When the bird was placed on the water of a pond, nothing could induce him to attempt to dive; and from the manner of his putting the bill, and sometimes the whole head under water, as if searching for fish, it appears that their prey is frequently taken in that manner. It is probable more fish are caught in their congregated migrations, when the shoals are near the surface, than by their descent upon wing; for the herrings, pilchards, mackarel, and other gregarious fishes, cannot at that time avoid their enemy, who is floating in the midst of profusion. In the act of respiration, there appears to be always some air propelled between the skin and the body of this bird, as a visible expansion and contraction is observed about the breast; and this singular conformation makes the bird so buoyant, that it floats high on the water, and not sunk beneath its surface, as observed in the cormorant and shag. The legs are not placed so far behind as in such of the feathered tribe as procure their subsistence by immersion: the Gannet, consequently, has the centre of gravity placed more

forward; and, when standing, the body is nearly horizontal like a goose, and not erect like a cormorant.

Having, by the dissection of a specimen of the Gannet for preservation, noticed the slight and partial adhesion of the skin to the flesh of the whole under parts of the body, we availed ourselves of the opportunity of paying more attention to the structure of this bird, and by experiments endeavoured to discover to what extent, and upon what principle, the inflation of the body was performed.

The appearance of so singular a conformation, brought to recollection what Buffon relates of the pelican; who remarks, that from the lungs the air passes through axillary pipes, into a thick vescicular cellular membrane, that covers the muscles and envelopes the whole body. The structure, however, of the Gannet, although probably intended for similar purposes, is very different from that of the Pelican, according to the relation of that naturalist.

The bill of the Gannet differs from that of most birds, for it is not only destitute of nostrils, but on each side the upper mandible towards the base is a dentation that divides the margin, and thus admits of considerable motion.

It has been customary to describe the Gannet as possessing a large pouch, like the pelican, under the chin, capable of containing five or six herrings; but this is erroneous. The gullet (*æsophagus*) is extremely capacious, and the skin from the chin downwards, extending along the neck, is equally capable of dilation, so that five or six fishes, equal in size to that of a herring, might be contained in the gullet and stomach; for there appears to be very little difference between them; or in other words, the stomach is a continuation of the gullet, (*æsophagus,*) with little or no stricture or division.

It is well known that many birds regurgitate with much ease and facility; and that instinct points out to them the necessity of preparing the food intended for the nourishment of their young, in the receptacle usually termed the craw: in this manner the Gannet, having none, can readily disgorge the contents of its stomach to satisfy its young.

By comparative anatomy it has been clearly demonstrated, that birds in general are provided with air vessels in different parts of the body, and that many of their bones are not destitute of this contrivance, admirably fitted for increasing their levity, and consequent buoyancy, as well as progressive motion through that element in which they are intended principally to move; and that too, with a velocity that far surpasses all other parts of animated nature. Mr. John Hunter (in the Transactions of the Royal Society) proves, that

the air-cells, in the parts already mentioned, have a free communication with the lungs, by means of openings on their surface, through which the air passes readily into them: and it clearly appears there is no *diaphragm* that confines the air to the regions or cavity of the breast, but that the whole of the abdomen is equally inflated by inspiration through the lungs.

Thus far have the scientific researches of that anatomist contributed to our knowledge on this subject. No one appears to have noticed the phenomena attendant on the construction of the Gannet, or to what further extent this circulation of aerial fluid is carried in some particular species of birds; a circumstance which demands our highest admiration, when we contemplate the advantages of such a structure in conducing to the comforts, and perhaps to the very existence of such animals.

Several Gannets having been subjected to artificial inflation, we shall state the result, and relate the manner in which the experiments were pursued. A pipe was first introduced into the windpipe, (*trachea,*) and when air was propelled through it, the whole internal cavity of the body was inflated, but no air passed into the external cells between the skin and the body. An incision was then made in the lower part of the abdomen into the body, very near the vent, into which air was forced through a pipe; the pipe in the windpipe, (*trachea,*) having been previously stopped, and a similar inflation ensued, without affecting the exterior cells. The pipe was now removed from the windpipe, (*trachea,*) and upon the air being propelled with force through the pipe near the vent, it readily found its way through the *larynx*, producing a noise similar to the sound emitted by the living bird. A small opening was then made in the skin on the left side, about midway between the wing and the thigh, and a pipe introduced, having first stopped those directly communicating with the internal parts. It was now obvious that when air was forced through this orifice, the skin on that side, as far as the middle line of the body, was greatly inflated, extending into the lower part of the neck, along the larger joints of the wing, down the thigh, and also into the cavity of the body; but the right side was not in the least affected. The pipe at the *trachea* being now removed, the air produced a similar effect upon the *larynx*, as before mentioned, but not so loud. Still suspecting that there was a communication between the sides, by means of some valvular apparatus, the right side was subjected to the same experiment; the result, however, negatived our expectation, the effect produced being similar in every respect.

From a repetition of these experiments upon several subjects, it became evident that there was a communication between the lungs and the cellular membrane that covers the greater part of the body, as well as with the whole cavity of the body, but that, by reason of some valvular contrivance, the skin could not be artificially inflated through the lungs, although air would readily pass in a contrary direction. It is also clear that there is no direct communication between the sides.

In order to examine this extraordinary structure, we made a longitudinal incision the whole length of the body, a little on one side of the keel, or what is commonly termed the breast-bone; by this means the membrane that connects the skin to the body, and cuts off the communication between the sides, was easily examined; but nothing was observed, indicating that a communication could be effected, even at the will of the bird. On each side, nearly equidistant between this pectoral membrane and the back, is situated another longitudinal one, very similar to the last, but perforated; between this and the pectoral are about nine irregular transverse membraneous septa, that hold the skin firmly to the body, having a free communication with each other. The skin is also furnished with a transparent cellular membrane, the cells being regularly perforated close to the base of each feather. At the upper part of the breast is a large bag, which extends some way up the neck; this is attached to the skin by the septa of innumerable small cells, but no opening into this cellular bag could be discovered; the introduction, however, of a small pipe through an artificial aperture, clearly demonstrated a passage to the lungs, as the whole internal cavity of the body was inflated, and the air issued from the *trachea*. Upon opening this bag, the passage of communication with the internal parts appeared to be under the shoulder-blades, (*clavicles,*) as a thin perforated membrane was perceived at the bottom, leading to the thorax, not directly into the lungs, but near the part where the *trachea* divaricates, and afterwards communicating with the lungs. It could not, however, be discovered where the air could find a passage from the great magazine into the cellular bag, and yet there is every reason to conclude that at this part some valvular passage exists.

Pursuing our researches, we observed at the bottom of each lobe of the lungs, a considerable opening for the passage of air into the cavity of the body. But what arrested our particular attention, was a wonderful provision of nature for the protection of the vital parts, by guarding the *viscera* with a strong integument, that preserves them in a proper degree of moisture, and contributes to the due secretions for lubricating those parts, so essential to the functions of their delicate

nature, which might otherwise be too quickly carried off, by the constant circulation of fresh air that nearly surrounds them; for this integument is held only by ligaments to the back and front, leaving all other parts free for inspired air. The liver and intestines are firmly attached to the surrounding integument; the heart is enveloped by a similar covering, which is only partially connected to the common one.

In the *trachea* nothing very remarkable occurs, except two small glands about the size of a pea, at the lower extremity. The tongue is so extremely diminutive, as scarcely to be entitled to that denomination. The *clavicles*, or what is commonly called the merry-thought, which are usually affixed to the point of the keel of the breast-bone by a ligament, is in the Gannet so firmly united as to appear a part of it.

From what has been already observed, it will not be unreasonable to conclude, that the Gannet is endowed with such singular properties, for very different purposes than those of long and continual immersion, of which we have before stated it appears to be incapable. But such a power of inflation must contribute greatly to lessen the concussion in its rapid descent upon water, in order to seize its prey. Besides, as the enlargement of the surface, without materially adding to the specific gravity, must greatly contribute to its buoyancy both in air and water, it is well adapted for residing in the midst of the most tempestuous sea, floating on its surface in perfect security, and following those shoals of fishes on which depends its whole existence. Thus, when all other birds are compelled to seek shelter in bays and creeks, the Gannet is enabled to brave the severest weather in all seasons, without attempting to near the shore.

This contrivance may also be of the most important service to an animal which is constantly exposed, even in the most inclement season, and cannot quit its station without starving. Nothing could possibly conduce more to its security against intense cold, or be better adapted to preserve the necessary temperature of animal heat, than the intermediate air dispersed between the skin and the body, since that element is found to be a non-conductor of caloric. Upon this principle, what animal can be more securely protected against cold, or retain its vital heat so effectually as the Gannet; or such birds as are almost surrounded with a body of confined air, divided by cells, and intersected by membranes between the skin and the body, and that skin so amply covered with a light porous substance, filled also with air, and impervious to water.

The Gannet is capable of containing about three full inspirations of the human lungs, divided into nearly three equal portions, the cellular

parts under the skin on each side, holding nearly as much as the cavity of the body. Now as a full or extraordinary inspiration of the human lungs has been considered to occupy a space of about sixty cubic inches, (Phil. Trans. vol. 69, p. 349,) so the Gannet is capable of containing not less than 180 cubic inches of air at one time, subject to the will of the bird under certain impressions.

GAPE.—A cavity formed by the mandibles of the bill.

GARDENIAN HERON.—A name for the young of the Night Heron.

GARGANEY (*Querquedula circia*, STEPHENS.)

Anas Querquedula, *Linn.* Syst. 1. p. 203. 32.—*Gmel.* Syst. 2. p. 531.—*Raii*, Syn. p. 148. 8.—*Will.* p. 291. t. 74.—Ind. Orn. 2. p. 872. 99.—*Briss.* 6. p. 427. 31. t. 39. f. 1. 2.—*Ib.* 8vo. 2. p. 473.—*Temm.* Man. d'Orn. 2. p. 844.—Anas circia, *Gmel.* Syst. 1. p. 533.—Phascas forte Gesnero D. Johnson, *Raii*, Syn. p. 147. A. 4. (fem.)—*Will.* p. 289.—Sarcelle, *Buff.* Ois. 9. p. 260.—Querquedula circia, *Steph.* in *Shaw's* Gen. Zool. 9.—Garganey, Br. Zool. 2. No. 289. t. 101.—*Ib.* fol. 158. t. Q. 9.—Arct. Zool. 2. p. 576. O.—*Will.* (Angl.) p. 377. 7. t. 74.—*Lath.* Syn. 6. p. 550. 87.—*Lewin's* Br. Birds, t. 259.—*Pult.* Cat. Dorset. p. 21.—*Walc* Syn. 1. t. 75.—*Don.* Br. Birds, 1. t. 21.—*Flem.* Br. Anim. p. 125.—Teal, var. *Mont.* Orn. Dict.

Provincial.—Pied Widgeon. Summer Teal.

This species of duck is in size between the widgeon and teal; length about sixteen inches; weight fourteen or fifteen ounces. The bill is dark lead-colour; irides light hazel.

The upper part of the head dusky brown, streaked with dusky; over the eye is a broad white line, passing down the side of the neck; the cheeks and upper part of the neck purplish, marked with minute lines of white pointing downwards; the breast marked with semicirculars lines of brown and black; chin black; belly dirty white, streaked with dusky towards the vent; the sides crossed with numerous small black undulated lines; coverts of the wings cinereous grey, the larger ones tipped with white; scapulars long and narrow, the upper ones striped with black, white, and ash-colour, the rest cinereous grey; the speculum on the secondary quill-feathers is green, tipped with white; the tail is dusky; legs lead-colour; tail possesses fourteen feathers. The female is brown above, streaked with dusky; the white streak behind the eye is very faint, and the green on the wing wanting. This last distinguishes it from the female teal, which in other respects it resembles.

Whether this bird ever breeds with us is not ascertained; we have received it from the decoys in Somersetshire, in the month of April, by the name of summer-teal, and were informed it made its appearance on those pools always about this time.

It is found with us in winter, as also in France at that season; has

been observed in Sweden, Russia, and Siberia, and even as far as Kamschatka, where it is said to be plentiful, and most probably breeds. *It is common in the Orkneys.*

GARULOUS ROLLER.—A name for the Roller.

*GAUNT (*Podiceps cristatus*, LATHAM.)

Colymbus cristatus, *Linn.* Syst. 1. p. 222. 7.—*Gmel.* Syst. 2. p. 589.—Podiceps cristatus, Ind. Orn. 2. p. 780. 1.—Colymbus major-cristatus, et cornutus, *Raii*, Syn. p. 124. A. 2.—*Will.* p. 257. t. 61.—Colymbus cornutus, *Briss.* 6. p. 45. 4. t. 5. f. 1.—*Ib.* 8vo. 2. p. 370.—Le Grebe cornu, *Buff.* Ois. 8. p. 235. t. 19.—Greater crested and horned Ducker, *Will.* (Angl.) p. 340. 5. t. 61. f. 1.—*Albin*, 1. t. 81.—*Plot's* Hist. Staff. p. 229. t. 22.—Crested Grebe, Br. Zool. 2. No. 223.—*Ib.* fol. 132. t. K.—Arct. Zool. 2. p. 498. A.—*Lath.* Syn. 5. p. 281. 1.—*Lewin's* Br. Birds, 5. t. 106.—*Walc.* Syn. 1. t. 102.—*Don.* Br. Birds, 3. t. 68.—Colymbus cinereus-major, *Raii*, Syn. p. 124. A. 1.—*Will.* p. 357.—*Albin*, 2. t. 75.—Colymbus cristatus, *Briss.* 6. p. 38. 2. t. 4.—*Ib.* 8vo. 2. p. 368.—Le Grebe huppé, *Briss.* 8. p. 233.—Grey, or ash-coloured Loon, *Will.* (Angl.) p. 340. 4. t. 61. f. 4.—Colymbus urinator, *Linn.* Syst. 1. p. 223. 9.—*Gmel.* Syst. 2. p. 593.—Colymbus, *Briss.* 6. p. 34. 1. t. 3. f. 1.—*Ib.* 8vo. 2. p. 368.—Colymbus major Aldrovand, *Raii*, Syn. p. 125. 6.—*Will.* p. 256. t. 51.—Le Grebe, *Buff.* Ois. 8. p. 227.—Greater Loon, or Arsefoot, *Will.* (Angl.) p. 339. t. 51.—*Edw.* t. 360. f. 2.—Tippet Grebe, Br. Zool. 2. No. 222. t. 78.—*Ib.* fol. 133.—*Lath.* Syn. 5. p. 283. 2.

Provincial.—Cargoose.

The variety of species authors appear to have made from this bird has obliged us to be more than usually diffuse in the synonimes; all of which we consider to be mere variety, occasioned by age, sex, and season.

A full-grown male Gaunt weighs between two and three pounds; length about two feet. The bill is two inches and three quarters long, dusky brown along the ridge of the upper mandible and at the point; the rest reddish flesh-colour; irides and lore crimson. The head is much enlarged by a crest of a dusky colour, standing up on each side; the cheeks and throat are surrounded by long feathers of a ferruginous colour; from the bill to the eye is a black line, above which is a white one; the chin is white; the hind part of the neck, and the upper part of the body and wings, dusky brown; the under part of the neck, breast, and all beneath, beautiful glossy white; the primary quill-feathers dusky; some of the inner ones tipped with white, the rest are nearly all white, which, when the wing is closed, makes an oblique bar of that colour across it; legs dusky on the outside; some wholly dusky green.

In a male bird now before us, the long feathers on the sides of the head and throat are mostly dusky, with a mixture of ferruginous; the sides under the wings, and the thighs, dusky brown; two or three of the outer scapulars, and the ridge of the wing, white; the lore is dusky green.

This bird is probably of the second year, and not arrived at maturity.

The female now before us did not weigh two pounds; the length twenty inches to the end of the rump feathers; bill nearly the same, but lighter flesh-coloured; irides rufous-brown; the feathers about the head scarcely elongated; the upper part of the head, back of the neck, and whole upper parts, dusky, dashed with ash-colour; on the crown of the head the feathers are a little lengthened; the lore is brown, beneath which a stroke of small brown feathers reaches from the mouth to the eye; the cheeks are white, with a few black spots near the sides of the throat; the under parts are wholly of a fine satin white, from chin to vent; the shoulders, and smallest coverts of the wings, white; the eleven first quill-feathers are dusky, the four last of them tipped with white; the rest are white, but a few of them have a dusky streak down the shaft; the legs are dusky without, inside pale flesh-colour; inner edge yellow; feet dusky beneath, pale flesh-colour above; edges of the fins yellow; nails bluish.

These and other varieties frequently occur; and it is probable that even in maturity two are scarcely alike in plumage, and that the full feathers of the head are not perfected till the third year. It must also be observed, that this, as well as many other birds, vary in the colour of those parts destitute of feathers, such as the bill, lore, and legs; these change with the season, and are brightest in the spring.

There can be no doubt that the tippet grebe is the female or young of this species. Dr. Latham seems to have been inclined to this opinion in his Synopsis; and in his Index Ornithologicus, has judiciously brought them together.

That author informs us that a large flock of the Gaunts appeared on the shores of the river Thames, many of which came under his inspection: amongst them he found the greatest variety about the head, from being perfectly without a crest, to the most complete one, with all the intermediate stages.

This bird is indigenous to England; it breeds in the meres of Shropshire and Cheshire, and in the fens of Lincolnshire. The nest is large, composed of a variety of aquatic plants; it is not attached to any thing, but floats amongst the reeds and flags, penetrated by the water. The female lays four white eggs, about the size of that of a pigeon.

Their principal food is fish, in pursuit of which they dive admirably. On the least appearance of danger they plunge under water, depending very little on their wings for safety. They are very rarely seen on land, and at this season seldom fly farther than from one side of the pool

to the other. Mr. Pennant says it will carry its young upon its back, or under its wing, when they are tired, and feeds them with small eels.

In the winter these birds visit our coasts and large rivers, especially in hard weather, when the standing waters are frozen.

GENTIL FALCON.—The young of the Goss Hawk.

GIDD.—A name for the Jack Snipe.

GILLIHOWTER.—A name for the Barn Owl.

GIZZARD.—*The name given to the strong, muscular, and cartilaginous portion of the stomach in birds which feed on grain, which is so different from the membranaceous stomach of birds of prey, (*Raptores.*) The gizzard receives the food which has previously been taken into the crop.*

GLAREOLA (Brisson.)—*Pratincole; a genus thus characterised. Bill short, hard, convex, curved for upwards of half its length, and compressed towards the point; nostrils, at the sides of the base, oblong and obliquely cleft; legs feathered nearly to the knee; toes three before and one behind; the outer united to the middle one by a short membrane; claws long, and drawn to a fine point; wings very large; the first quill feather the longest in each wing; tail more or less forked.*

GLAUCOUS GULL (*Larus glaucus*, Brunnich.)

**Fabric.* Faun. Groenl. p. 100.—*Brunn.* Orn. Bor. p. 148.—*Temm.* Man. d'Orn. 2. p. 757.—*Sabine*, Linn. Trans. 12. p. 543.—*Scoresby*, Arct. Reg. 1. p. 535.—Burgomaster, *Flem.* Br. Anim. p. 139.—Burgermeister, *Martens*, Spitz. p. 60. T. L. F. D.—*Buff.* Ois. 8. 448.—Glaucous Gull, *Penn.* Arct. Zool. 2. p. 532.

This is the largest species of Gull known. The back, wing coverts, and scapulars, of a bluish ash-colour; feet livid; length of the shank nearly three inches; length of the body thirty inches; expansion of the wings, sixty-three inches; the quills terminated by a large white space. In winter the neck is mottled with brown. The female is less in size.

It inhabits the most northern regions, and is said to be common in Russia. It was observed by Edmonston as a winter visitant in Zetland. Lives upon fish, the excrements of whales, and young penguins. It nestles on rocks. Its eggs are greenish, elongated, and marked with six or eight black blotches.*

GLEAD.—A name for the Kite.

GLOSSY IBIS.—A name for the Ibis.

GOAT OWL.—A name for the Nightjar.

GOAT SUCKER.—An absurd name for the Nightjar.

GODWIT (*Limosa melanura*, Leisler.)

* Scolopax ægocephala, *Linn.* Syst. 1. p. 246. 16.—*Gmel.* Syst. 2. p. 667.—Ind. Orn. 2. p. 719. 16.—Scolopax limosa, *Linn.* Syst. p. 244. No. 13.—Ægocephalus Bellonii, *Raii*, Syn. p. 105. A. 4.—*Will.* p. 215.—*Ib.* (Angl.) p. 294.—Fedea nostra secunda, *Raii*, Syn. p. 105.—Limosa rufa major, *Briss.* 5. p.

284. 6.—*Ib.* 8vo. 2. p. 282.—Totanus limosa, *Bechst.* Naturg. Deut. 4. p. 244. Jadıeka Snipe, *Lath.* Syn. 5. 146.—*Mont.* Orn. Dict.—Le grande Barge rousse, *Buff.* Ois. 7. p. 505.—Godwit, *Lath.* Syn. 5. p. 145. 14. A.—*Albin*, 2. t. 70. —Br. Zool. fol. t. B. B.—*Walc.* Syn. 2. t. 141.—Scolopax Belgica, *Gmel.* Syst. 1. p. 663. 39.—Scolopax leucophæ, Ind. Orn. 2. p. 719. 17 ?—Limosa grisea major, *Briss.* 5. p. 272. 3. t. 24. f. 2.—*Ib.* 8vo. 2. p. 279.—Common Godwit, Br. Zool. 2. No. 179.—*Ib.* fol. 120. t. B.—Arct. Zool. 2. No. 373.—*Lath.* Syn. 5. p. 144. 15.—*Ib.* Supp. p. 245.—Grey Godwit, *Lewin's* Br. Birds, 4. t. 161. —*Don.* Br. Birds. 4. t. 75.—Lesser Godwit, *Penn.* Br. Zool. 2. p. 182.—Red Godwit, *Lath.* Syn. 5. 142.

Provincial.—Yarwhelp. Stone Plover. Sea Woodcock.*

This species is subject to very considerable variety, both in size and plumage; and we conceive authors have erred in making more than one species out of these varieties, which is only a difference occasioned by age or sex. Dr. Latham had, in his Synopsis, given a variety, which afterwards, in his Index Ornithologicus, he gave as a distinct species, under the title of Leucophæa; but we do not find any sufficient character to make it distinct from the Ægocephala of Linnæus. In the many we have examined, the markings seem to run so much into one another that we cannot find a permanent distinction.

The weight of this bird is from seven to twelve ounces; length fifteen or sixteen inches; bill from three inches and a quarter to upwards of four inches, a very little reflected, of a pale brown, dusky at the point; irides hazel; the head, neck, and upper parts are of a light rusty brown, in some inclining to ash-colour; the middle of each feather dusky; breast cinereous-brown; belly and under tail coverts white; in some the throat and rump are white; from the bill to the eye a whitish stroke; the prime quill-feathers are black; the shaft of the first white; tail white, barred more or less with dusky brown; legs long and dusky, sometimes bluish grey; in some the upper and under tail coverts are barred or spotted with brown or dusky; and other trifling varieties. There is no doubt that the Red Godwit and jadreka snipe are varieties of this species: one of the latter in Colonel Montagu's possession is described as follows. "Cheeks and chin freckled with pale ferruginous; from the upper mandible a pale streak runs over the eye, and beneath that a dusky one; the neck and breast cinereous, mottled with pale ferruginous; on the other, and along the sides, the ferruginous markings become less frequent, but form distinct, irregular, broad, transverse bars: these markings are occasioned by the ends of some of the feathers being more or less ferruginous: the belly is white, with only a few scattered spots; the thighs pale rufous-brown, mixed with white; the feathers of the back, and coverts of the wings brown, with pale margins; quills dusky, at the base of most of them more or less white, except the middle ones; the exterior web of the outer feathers white nearly to the tip; the coverts immediately

impending the tail, are black, and conceal the white at the base of the tail-feathers; the rump is white, as well as the under coverts of the tail; the bill more than four inches in length, and appears to have been reddish for two-thirds of its length from the base, with the point dusky." The Red Godwit is described as generally larger than the Godwit, weighing about twelve ounces; length eighteen inches. Another variety had the greater coverts of the wings so deeply margined with light greyish brown, as to appear almost all white at a little distance, and the sides of the body had a few long streaks of brown. Old male birds are said to have some black lines on the chip, breast, and throat. These birds formerly continued with us the whole year, resorting in the spring to the fens, where they breed, and are taken in nets with the ruffs, by means of a stale or stuffed bird. In the winter it is found on our shores, particularly at the mouths of large rivers and inlets, where the mud and sand become bare at low water, where it feeds on insects. It is found in various parts of the continent of Europe and Asia, as well as in America.

GOLD-CRESTED WREN (*Regulus cristatus*, Ray.)

*Motacilla Regulus, *Linn.* Syst. 1. p. 338. 48.—*Gmel.* Syst. 2. p. 995.—Sylvia Regulus, Ind. Orn. 2. p. 548. 152.—*Temm.* Man. d'Orn. 1. p. 229.—Regulus cristatus, *Raii*, Syn. p. 79. A. 9.—*Will.* p. 163. t. 42.—*Briss.* 3. p. 579. 17.—*Ib.* 8vo. 1. p. 472.—Regulus auricapillus, *Selby*, p. 192.—Gegrönter Sanger, *Meyer*, 1. p. 250.—Roitelet, Poul, Souci, *Buff.* 5. p. 363. t. 16. f. 2.—Gold-crested Wren, Br. Zool. No. 153.—*Ib.* fol. 101. t. S. f. 3.—Arct. Zool. 2. No. 321.—*Ib.* Supp. p. 64.—*Will.* (Angl.) p. 227.—*Edw.* t. 254. 1.—*Albin*, 1. t. 53.—*Haye's* Br. Birds, t. 38.—*Lath.* Syn. 4. p. 508. 145.—*Lewin's* Br. Birds, 3. t. 112.—*Walc.* Syn. 2. t. 243.—*Pult.* Cat. Dorset. p. 9.—*Don.* Br. Birds, 1. t. 4.*

This elegant little species is the smallest British bird. Its weight seldom exceeds eighty grains; length three inches and three quarters. The bill is slender and black; irides hazel. The crown of the head is singularly beautiful; the crest is composed of a double series of feathers, arising from each side, and almost meeting at their points; the exterior are black, the interior bright yellow; between which, on the crown, the feathers are shorter, and of a fine deep orange; the forehead, chin, and round the eyes, whitish; the hind part of the head, neck, and back, green; the two first dashed with ash-colour; quills dusky, edged with green; at the base of the secondary quills is a black bar, above which the coverts are tipped with white, forming a narrow bar of that colour; above that the smaller coverts are black, tipped with white, which form two other small obscure bars; the under parts of the body are brownish white, lightest on the belly, a little tinged with yellow; the tail is somewhat forked, the feathers dusky, edged with yellowish green.

The female has the head rather less crested, and the crown is bright yellow where the male is orange.

The young birds do not possess the crest and yellow feathers till autumn.

The nest is not made with an opening on one side, as described by some, but is in form and elegance like that of the chaffinch, composed of green moss, interwoven with wool, and invariably lined with small feathers, with which it is so well bedded as to conceal the eggs. It is sometimes placed against the body of a tree covered with ivy, but most times underneath a thick branch of fir.

* Albin, on the authority of Derham, and most of the common authors, describe this nest as having a side entrance. The truth seems to be that this bird, like many other species, appears to know how to accommodate its nest to the locality chosen. When it selects a spot where there is a natural canopy, it does not take the trouble to build one; but when this is wanting, it forms as neat a dome, with a small side entrance, as any of the other British Wrens. It is the only native bird, I believe, which ever suspends its nest like so many of the tropical birds, for though it is said not unfrequently to build against the trunk of a tree covered with ivy, I have always found it hanging under the broad bough of a spruce fir, or cedar, or a yew-tree, the thick, flat disposition of the leaves forming a sort of umbrella over the opening. The materials of the nest are the same as those of the goldfinch and chaffinch, namely, green moss, (*hypnum tenellum*, &c.,) or lichens, felted together very neatly with wool, and lined with the down of willows and other plants, or very soft feathers.*[1] The eggs are from seven to ten in number, of a brownish white; rather darker at the larger end; their weight nine or ten grains.

A pair of these birds, who took possession of a fir-tree in my garden, ceased their notes as soon as the young were hatched; and as this beautiful little family caused me much delight and amusement, some observations thereon may not be unacceptable to the curious reader. When first I discovered the nest, I thought it a favourable opportunity to become acquainted with some of the manners of this minute species, and to endeavour to discover whether the male ever sung, by way of instructing the young ones. Accordingly, I took the nest when the young were about six days old, placed it in a small basket, and by degrees enticed the old ones to my study window; and after they became familiar with that situation, the basket was placed within the window; then at the opposite side of the room. It is remarkable, that although the female seemed regardless of danger, from her affection to her young, the male never once ventured within the room; and

[1] Architecture of Birds, p. 318.

yet would constantly feed them while they remained at the outside of the window: on the contrary, the female would feed them at the table at which I sat, and even when I held the nest in my hand, provided I remained motionless. But on moving my head one day, while she was on the edge of the nest, which I held in my hand, she made a precipitate retreat, mistook the open part of the window, knocked herself against the glass, and laid breathless on the floor for some time.[1] However, recovering a little, she made her escape, and in about an hour after I was agreeably surprised by her return, and she would afterwards frequently feed the young while I held the nest in my hand. The male bird constantly attended the female in her flight to and fro, but never ventured beyond the window-frame; nor did he latterly ever appear with food in his bill. He never uttered any note but when the female was out of sight, and then only a small chirp. At first there were ten young in the nest, but, probably for want of the male's assistance in providing food, two died. The visits of the female were generally repeated in the space of a minute and a half or two minutes, or, upon an average, thirty-six times in an hour; and this continued full sixteen hours in a day, which, if equally divided between the eight young ones, each would receive seventy-two feeds in the day; the whole amounting to 576. From examination of the food, which by accident now and then dropped into the nest, I judged from those weighed, that each feed was a quarter of a grain upon an average; so that each young one was supplied with eighteen grains weight in a day; and as the young birds weighed about seventy-seven grains at the time they began to perch, they consumed nearly their weight of food in four days at that time.[2] I could always perceive by the animation of the young brood when the old one was coming; probably some low note indicated her near approach, and in an instant every mouth was open to receive the insect morsel. But there appeared no regularity in the supply given by the parent bird: sometimes the same was fed two or three times successively; and I generally observed that the strongest got most, being able to reach farthest, the old one delivering it to the mouth nearest to her, and after each feed she waited awhile to see if any *muted*. The lesser species of birds, who are so frequently fed, seldom or ever mute but immediately after they are fed, by which

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[1] It is probable the focal distance of such minute animals' eyes is very near, and that large objects are not represented perfect on the *retina;* that they do not seem to see such distinctly is certain, unless in motion.

[2] This extraordinary consumption seems absolutely requisite in animals of such rapid growth. The old birds of this species weigh from eighty to ninety grains.

means the *fæces* are never left on the nest, but are instantly carried away by the parent bird.

This minute species braves the severest winters of our climate, being equally found in all parts during that rigorous season, and is by no means so scarce as it is supposed to be, but, from its diminutive size, it is seldom noticed. It would in all probability be much more plentiful, but from some cause which we have not been able to discover, the female is frequently destroyed at the time of its incubation, and the nest with the eggs left to decay.

Bechstein informs us that these beautiful birds are spread over the whole of Europe and Asia, its favorite haunts being the extensive pine and fir forests of the north of Europe, from whence they migrate towards the south on the approach of winter. In the month of October, they are observed in Germany, passing towards the south, and returning again in the month of March towards the north. In that country, however, flocks of them reside during the whole year, uniting together as the year advances, and searching out those spots where their food, which consists of small insects, is most abundant.

He adds, that they are easily taken by cautiously approaching the branch on which they generally perch themselves, and touching them softly with a lime twig, attached to a stick of sufficient length to reach them, the gentle creatures become unresisting prisoners. When taken they are easily tamed, and will, in a very short time, take their food from the hand; but such is their extreme delicacy, that many die before one can be reared: once accustomed to confinement, they have been known to live a considerable time.

A pair of these birds, in the collection of Mr. Luscome, of Kingsbridge, were of a cream colour, with the usual yellow crown, by which the sexes are distinguished; the song, which is short, weak, and with little variety, is repeated at short intervals throughout the day in spring, and until it has young.

* "On the 24th and 25th of October, 1822," says Selby, "after a very severe gale, with thick fog from the north-east, (but veering, towards its conclusion, to the east and south of east,) thousands of these birds were seen to arrive upon the sea-shore and sand-banks of the Northumbrian coast; many of them so fatigued by the length of their flight, or perhaps by the unfavourable shift of wind, as to be unable to rise again from the ground, and great numbers were in consequence caught or destroyed. This flight must have been immense in quantity, as its extent was traced through the whole length of the coasts of Northumberland and Durham. There appears little doubt of this

having been a migration from the more northern provinces of Europe (probably furnished by the pine-forests of Norway, Sweden, &c.,) from the circumstance of its arrival being simultaneous with that of large flights of the woodcock, fieldfare, and redwing. Although I had never before witnessed the actual arrival of the gold-crested regulus, I had long felt convinced, from the great and sudden increase of the species during the autumnal and hyemal months, that our indigenous birds must be augmented by a body of strangers, making these shores their winter's resort.

"A more extraordinary circumstance in the economy of this bird took place during the same winter,[1] viz. the total disappearance of the whole tribe, *natives* as well as strangers, throughout Scotland and the north of England. This happened towards the conclusion of the month of January, 1823, and a few days previous to the long-continued snow-storm, so severely felt through the northern counties of England, and along the eastern parts of Scotland. The range and point of this migration are unascertained, but it must probably have been a distant one, from the fact of not a single pair having returned to breed, or pass the succeeding summer, in the situations they had been known always to frequent. Nor was one of the species to be seen till the following October, or about the usual time, as I have above stated, for our receiving an annual accession of strangers to our own indigenous birds."*

GOLDEN EAGLE (*Aquila Chrysaëtos*, Vigors.)

ADULT.

*Falco Chrysaëtos, *Linn.* Syst. 1. p. 125. 5.—Faun. Suec. p. 54.—*Gmel.* Syst. 1. p. 256.—*Lath.* Ind. Orn. 1. p. 12. sp. 8.—*Raii*, Syn. p. 6. 1.—*Muller*, No. 59.—*Briss.* 1. p. 431. 7.—*Ib.* 8vo. p. 124.—L'Aigle Royal, *Buff.* pl. Enl. 410. the female.—*Ib.* Le Grand Aigle.—L'Aigle Commun, et L'Aigle Royal, *Cuv.* Reg. Anim. 1. p. 314.—Aigle Royal, *Temm.* Man. d'Orn. 1. p. 38. 2d edit.—Golden Eagle, Br. Zool. 1. No. 42. t. 16.—*Ib.* fol. p. 61. t. A.—Arct. Zool, 2. p. 214. *a.*—*Lewin's* Br. Birds, 1. t. 2.—*Lath.* Syn. 1. p. 31.—*Ib.* Supp. p. 10.—*Mont.* Orn. Dict. 1.—*Ib.* Supp.—*Will.* (Angl.) p. 58.—*Bewick's* Br. Birds, p. 5.—*Walc.* Syn. 1. t. 3.—*Shaw's* Zool. 7. p. 75.

YOUNG.

Falco fulvus, *Linn.* Syst. 1. p. 125. 6.—*Gmel.* Syst. 1. p. 256.—*Lath.* Ind. Orn. 1. p. 10. 4.—Falco niger, *Gmel.* p. 359.—Chrysaëtos cauda annulo albo cincta, *Raii*, Syn. p. 6. 2.—*Will.* (Angl.) p. 28.—Aquila fulva, *Meyer*, Vög. Liv. und. Esthl. p. 2.—L'Aigle commun, *Buff.* Ois. 1. p. 86.—*Ib.* pl. Enl. 409. an accurate figure of the young bird.—Black Eagle, Br. Zool. p. 165. No. 43.—Ring-tail Eagle, Br. Zool. fol. p. 62.—*Will.* (Angl.) p. 59.—*Lath.* Syn. 1. p. 32.—*Ib.* Supp. p. 10.—*Lewin's* Br. Birds, 1. t. 3.—*Mont.* Orn. Dict.—*Ib.* Supp.—*Bewick's* Br. Birds, p. 7.—*Low's* Faun. Orcad. p. 31.—*Shaw's* Zool. 7. p. 71.—*Wern.* Tran. 4. 428. 434.—*Flem.* Br. Anim. p. 52. 3.—*Selby*, pl. 1. 1*. and 2. p. 4.

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[1] See Memoirs of the Wernerian Society, vol. v. p. 397

The descriptions given of the Golden Eagle by systematic writers, appear to correspond but little with the name. Willughby says that "the small feathers of the whole body are a dark ferruginous or chestnut colour." Linnæus, that "the body is variegated with brown or rusty." Latham, that "the head and neck are deep brown, the feathers bordered with tawny, the hind part bright rust colour, body dark brown." Bewick, that "the general colour is deep brown, mixed with tawny on the head and neck." Fleming, that "the accuminated feathers on the head and neck are bright rust colour, the rest of the plumage dusky brown." Selby, that "the secondary quills are clouded with hair-brown, broccoli-brown, and umber-brown; crown of the head and nape of the neck pale orange-brown, chin and throat dark umber-brown; vent pale reddish brown." Baron Cuvier, that "it is more or less brown." Temminck, that "the young at the age of one or two years have all the plumage of ferruginous or reddish brown, clear and uniform on all parts of the body, and in proportion as they advance in age the colours of the plumage become more embrowned (*rembrunissent*);" while Buffon alone says, "the plumage at first is white, then faint yellow, and afterwards it becomes a bright copper colour." Belon even ventures to infer that when Aristotle first used the term golden, (χρυσαετὸς), he did not mean that it was gilded, but only rather more reddish than other species.[1] But on turning to the passage in Aristotle, we find that he says expressly that the "colour is yellow" (χρῶμα ξανθός.)[2]

I can only reconcile these conflicting opinions by inferring, that as the Golden Eagle is not by any means so often seen as the common eagle, (*Haliaetus albicilla*, SAVIGNY,) the latter has been confounded with the former. During the summer of 1829, I saw an eagle kept in the garden of Mr. Perkins, at Lee, in Kent, whose plumage fully merited Aristotle's epithet of golden, for though it had little metallic lustre, it had that peculiar shade of russet yellow which gold exhibits when alloyed with copper, the feathers appearing, indeed, as if they had been powdered with gold dust. Previous to this, I had seen both in menageries and museums many birds called Golden Eagles, but without the slightest claim to the title, which now first struck me as highly appropriate. In the following August, I saw another bird of this species, at large, a league or so above Bonn on the Rhine. It was beating about among the orchards, and on the look-out, no doubt, for a hare or a rabbit, to carry to its eyry, which was probably situated on "the castled crag of Drachenfels," immediately opposite, or some other precipice on the

[1] Belon, Oyseaux, p. 91. [2] Aristotle, Hist. Anim. lx. c. 32.

Seven Mountains. It was not in the least alarmed at our approach, but alighted on the bough of a fruit tree not fifty yards from the road, where we could distinctly see the same golden tint on its plumage which I had admired in Mr. Perkins's eagle. It did not remain long on the branch, but skimmed away slowly under the trees, more like a fern owl than an eagle, giving me a much less exalted opinion of the bird of Jove than I had learned from the poets. But when I afterwards saw one sailing majestically in the upper air, above the Lurlei rocks, I could scarcely believe it was the same species of bird I had previously seen prowling about the orchard hedge-rows at Mehlem, and I at once acknowledged the accuracy of our great poet, who describes "the eagle towering in his pride of place."

"After the inspection," says Selby, "of several specimens, and minute inquiry into those districts of Scotland where eagles abound, it would seem that the white ring, which distinguishes the *F. fulvus*, is confined to birds of a certain age. During the first year the ring appears well defined, occupying the larger and upper half of the tail; but at the moult, which takes place subsequent to this age, the line between the white and lower or dark part of the tail becomes interrupted, and a few patches of a hair-brown colour make their appearance, advancing upon the white ring.

"At this age, and under this very state of feather, I had an opportunity of examining two living specimens at Mar Lodge in Aberdeenshire, which had been taken from the same nest in the preceding year. Each succeeding change of feathers, or moult, adds to the size of the brown patches, till the bird has attained maturity, (that is, its fourth year,) when the whole of the tail appears barred with hair and dark-brown, the roots of the feathers only remaining *white;* after which it undergoes no further change. In the rest of their plumage, the difference between the young and adult bird is trifling; and in other essential characters, viz., the size and form of the bill, the number of scales upon the feet, and anatomical structure, they appear perfectly similar."*

The general weight of this species is about twelve pounds; the length three feet and a half; breadth eight feet. The bill is of a bluish black; cere yellow; irides hazel.

The whole bird is of a dark brown; the feathers about the back of the head and neck long and narrow, bordered with tawny; quill-feathers chocolate brown; tail deep brown, dashed with ash-colour, and white at the roots; legs yellow, short, strong, and covered with feathers to the feet, the great characteristic distinction between this and the sea eagle.

The Golden Eagle is said to be not unfrequent in the mountainous parts of Ireland and Scotland; but we suspect it to be more rare than is generally imagined, and has undoubtedly been confounded with the sea eagle. It breeds in the most inaccessible rocks, and lays three or four white eggs. Selby says two, of a greyish white colour, clouded with spots of reddish brown.

Smith, in the History of Kerry, says, a poor man in that county got a comfortable subsistence for his family, during a summer of famine, out of an eagle's nest.

Mr. Pennant informs us it is frequent in Scotland, and adds, that it is very destructive to deer, which it will seize between the horns, and, by incessantly beating it with its wings, soon makes a prey of the harassed animal; that it builds in cliffs of rocks near the deer forests, and makes great havoc not only amongst them, but also the white hares and ptarmigans.

Mr. Willughby gives a curious account of the nest of this species found in the woodlands, near the river Derwent, in the Peak of Derbyshire. He says it was made of large sticks, lined with two layers of rushes, between which was one of heath; that in it was one young and an addle egg, and by them a lamb, a hare, and three heath-poults.

Instances have been recorded of infants being carried to their nests; and in the Orkneys there is a law which entitles any person killing one of these birds, to a hen out of every house in the parish in which it is killed. They are remarkable for their longevity, and abstinence from food. Mr. Pennant mentions one enduring hunger for twenty-one days.

*This Eagle does not appear to be so plentiful, even in North Britain, as the Sea Eagle, and probably is confined to the Highlands of Scotland, where it usually breeds in the most inaccessible parts of the mountainous cliffs; sometimes on that stupendous mountain so well known to all the northern tourists, Ben-Lomond. Upon the summit of that mountain an Eagle's egg was found amongst the rocks, without any nest, supposed to belong to this species, and which must have been prematurely dropped. As we were sporting in the neighbourhood of Ben-Lomond, on the summit of the lesser mountains that form its base, a grouse, (*Tetrao Scoticus*,) was wounded, and flew with difficulty eighty or a hundred paces. An Eagle, apparently of this species, perceiving the laborious flight of the grouse, descended with rapid wing from the adjacent lofty cliffs before our guns were re-loaded, and, in defiance of the shouts made to deter him, carried off his prey.

In another part of the Western Highlands of Scotland, we had an opportunity of witnessing the powers of the flight of this bird in

pursuit of its quarry. An old Black-Cock (*Tetrao tetrix*) was sprung, and was instantly pursued by the Eagle, (who must have been on a neighbouring rock unperceived) across the glen, the breadth of which was at least two miles. The Eagle made several unsuccessful pounces, but as there was no cover and the bird large, it probably fell a victim in the end.*

GOLDEN-EYE (*Clangula vulgaris*, Fleming.)

Anas Clangula, *Linn.* Syst. 1. p. 201. 23.—*Gmel.* Syst. 2. p. 523.—*Raii*, Syn. p. 142. A. 8.—*Will.* p. 282. 13. t. 73.—Ind. Orn. 2. p. 867. 87.—*Briss.* 6. p. 416. 27. t. 37. f. 2.—*Ib.* 8vo. 2. p. 470.—*Temm.* Man. d'Orn. 2. p. 870.—*Wils.* Amer. Orn. 8. p. 62.—Le Garrot, *Buff.* Ois. 9. p. 222.—Golden-eye, Br. Zool. 2. No. 276.—*Ib.* fol. 154. t. Add.—Arct. Zool. 2. No. 486.—*Albin*, 1. t. 96. —*Will.* (Angl.) p. 368. t. 73.—*Lath.* Syn. 6. p. 535. 76.—*Lewin's* Br. Birds, 7. t. 255.—*Walc.* Syn. 1. t. 69.—*Flem.* Br. Anim. p. 120.—Brown-headed Duck, *Lewin's* Br. Birds, 7. t. 256.—Morillon, or Grey-headed Duck, Br. Zool. 2. No. 277 ?—Arct. Zool. 2. p. 573. F ?—*Lath.* Syn. 6. p. 537. 77 ?—*Will.* (Angl.) p 367.—Anas Glaucion, Ind. Orn. 2. p. 868. 88.

Provincial.—Pied-Widgeon. Gowdy-Duck.

Willughby and Ray seem to have given the young, or female, of this species under the title of smaller red-headed duck. Lewin considers his brown-headed duck as a distinct species, and states the bill to be essentially different.

Nothing has tended so much to the discovery and ascertaining the species of ducks as the singular conformation in the *trachea*, or wind-pipe, of the males of some of this tribe of birds. That of the Golden-Eye is so very different from most others, than it is an unerring mark of distinction. We have examined many with the rusty-brown head, as described by authors for a different species, some of which were males, and had the enlargement of the *trachea*.

A matured male Golden-Eye weighs near two pounds; length between eighteen and nineteen inches; bill black; irides fine bright yellow; head and upper half of the neck black, glossed with green and violet, changeable as viewed in different lights; at the corner of the mouth is a large white spot; the lower part of the neck, the breast, and all beneath, are white; the back, rump, and upper tail coverts, black; scapulars black and white; the coverts of the wings are black, with a white patch on the lesser, and another on the larger coverts; quill-feathers black, except seven of the secondaries, which are mostly white; tail black; legs orange.

The female is considerably less. The bill is yellowish towards the point; the head in this, as well as in the male, is full of feathers, which makes it appear large; but instead of being black, it is, as well as the upper part of the neck, of a rusty-brown; round the middle of the neck

is a greyish ring; the lower part of the neck and breast mottled dusky and cinereous: back dusky, dashed with cinereous; the coverts of the wings and quills like the male, but the black parts of a dusky colour; the fore part of the legs and toes yellowish; the hind part and webs black. The young male birds are like the female in plumage, but are larger.

We have taken no small pains in dissecting a great many of this species which appeared to be females, but proved males; and all such possessed the swelling in the *trachea*, and the *labyrinth* of the Golden-Eye. It is probable the male of this species is many years arriving at full maturity, for it is rarely found with the full black head, and the white spot at the corner of the mouth. The sexes are readily discovered in their first feathers by passing the finger and thumb down the windpipe; the enlargement of the *trachea* is easily felt.

* "The windpipe of the Golden-eye," says Dr. Latham, "is of a curious and wonderful structure, for the labyrinth is not only of a different and much more complicated form than any other, but a singular enlargement takes place about the middle of the *trachea* itself." The ventricose part consists of the same cartilaginous rings as the rest of the windpipe, and in fact is only a great enlargement of the same structure, being at least four times the diameter of any other part, or three inches or more in circumference, and about three inches in length. This part is so formed by the inequality of its cartilaginous annulations, and intermediate membranes, that it is not only capable of contracting to little more than an inch in length, but likewise of compression, the under part being in the contracted state considerably flattened. The labyrinthic part at the bottom of the *trachea* is of so extraordinary a form, and so complicated a structure, that no description could give an adequate idea of it; suffice it to say, that it is very large, with a bony arch on one side, nearly transverse to the *trachea;* but for the perfect comprehension of it, we refer to the figure in the Linnæan Transactions, iv. pl. 15. fig. 1. 2. p. 118.

This bird, in its immature state, is the Morillon (*A. glaucion,*) of various authors. In all the males we examined of this and other varieties, (if the change of plumage from the young to the adult state may be so called,) the very remarkable *trachea* of the Golden-Eye appeared; and very little variation of plumage was observed in the female; they had the same truss-like shape; the form of the bill and the legs was similar, and the shape and number of feathers in the tail were invariably the same. It visits us in winter in small flocks, feeding

chiefly in rivers contiguous to the sea, although it is sometimes killed in waters more remote: it is a quick diver, and not easily shot, except on the wing. It is seldom caught in decoys, but we have frequently bought them in Bristol market, where they are indiscriminately sold for widgeons. They retire northward to breed, and are found at that season in Norway and Sweden. They are well known on the sea coast of America and also on the lakes and rivers of the interior, where they associate in small parties, and are known by the vigorous whistling of their wings as they pass through the air. They leave that country for the north in the month of April.*

GOLDEN ORIOLE (*Oriolus galbula*, Linnæus.)

* Oriolus Galbula, *Linn.* Syst. 1. p. 160. 1.—*Gmel.* Syst. p. 382. sp. 1.—*Lath.* Ind. Orn. 1. p. 186. sp. 45.—Coracias Oriolus, Fauna Suec. No. 95.—Galbula, *Raii*, Syn. p. 68. 5.—*Will.* p. 147. t. 36. 38.—Oriolus, *Briss.* 2. p. 320. t. 58. —*Ib.* 8vo. 1. p. 247.—Le Loriot, *Buff.* Ois. 3. p. 254. t. 17.—*Ib.* pl. Enl. 26. the male.—*Temm.* Man. d'Orn. 1. p. 129.—Gelbe Rache, *Bechst.* Naturg. Deut. 2. p. 1292.—Gelber Pirol, *Meyer*, Tasschenb. Deut. 1. p. 108.—Witwall, *Will.* (Angl.) p. 198.—Yellow Bird from Bengal, *Albin*, 3. t. 19.—Golden Thrush, *Edw.* t. 185.—Golden Oriole, Br. Zool. App. p. 41. t. 4.—*Lewin's* Br. Birds, 2. t. 43.—*Lath.* Syn. 2. p. 449. 43.—*Ib.* Supp. p. 89.—*Mont.* Orn. Dict.—*Ib.* Supp.—*Don.* Br. Birds, 1. t. 7.—*Bewick's* Supp. to Br. Birds.—*Selby*, pl. 35. fig. 1. & 2. p. 90.*

This is the only species ever found in England, a few instances of which are only on record. It is about the size of a blackbird; length nine inches and a half. The bill is brownish red; irides red. General colour of the plumage fine golden yellow; between the bill and eye a streak of black; the wings black, marked here and there with yellow, and a patch of the same in the middle of the wing; the two middle feathers of the tail are black, inclining to olive at the base, the very tips yellow; the base half of the others black, the rest yellow; legs lead-colour; claws black.

The female is of a dull greenish brown in those parts where the male is black. Wings dusky; tail dirty green; all but the two middle feathers yellowish white at the ends.

This beautiful bird is not uncommon in France, where it breeds. The nest is curiously constructed, in shape like a purse: it is fastened to the extreme forked branches of tall trees, composed of fibres of hemp, or straw mixed with fine dry stalks of grass, and lined with moss and liver wort. She is said to be so tenacious of her eggs as to suffer herself to be taken on the nest.

*Bechstein informs us, that in Germany they usually resort to the skirts of the forest, where they haunt the bushy branches and underwood of the old and lofty trees, from which it is difficult to see or

rouse them: during the summer they frequent the orchards and gardens, feasting upon the cherry. In the month of August they begin to leave that country in families, returning again the following May.

Their usual note is loud and shrill, but Bechstein had two young favorites of this species, one of whom, in addition to its natural song, would whistle a fanfare, and the other a minuet; the full, soft and melodious tones of their voice seemed to him extremely agreeable.*

GOLDEN PLOVER (*Charadrius pluvialis*, Linnæus.)

Charadrius pluvialis, *Linn.* Syst. 1. p. 254. 7.—*Temm.* Man. d'Orn. 2. p. 535.—*Gmel.* Syst. 2. p. 688.—Ind. Orn. 2. p. 740. 1.—*Briss.* 5. p. 43. 1. t. 4. f. 1.—*Ib.* 8vo. 2. p. 222.—*Flem.* Br. Anim. p. 113.—Pluvialis viridis, *Raii*, Syn. p. 111. A. 2.—190. 9.—*Will.* p. 229. t. 57.—Pluvialis aurea minor, *Briss.* 5. p. 47. 2.—*Ib.* 8vo. p. 223.—Charadrius apricarius, *Gmel.* Syst. 1. p. 687.—Le Pluvier doré, *Buff.* Ois. 8. p. 81.—Golden, or Green Plover, Br. Zool. 2. No. 208. t. 72.—*Ib.* fol. 128.—Arct. Zool. 2. No. 399.—*Will.* (Angl.) p. 308.—*Albin*, 1. t. 75.—*Lath.* Syn. 5. p. 193. 1.—Supp. p. 252.—*Lewin's* Br. Birds, 3. t. 181.—*Walc.* Syn. 2. t. 158.—*Don.* Br. Birds, 2. t. 45.—*Pult.* Cat. Dorset. p. 16.

Provincial.—Grey Plover. Whistling Plover.

Weight of this species between seven and eight ounces; length ten inches and a half. Bill one inch, dusky; irides hazel. The general plumage above is dusky, spotted with greenish yellow, brighter on the back and scapulars, palest on the wing coverts; sides of the head and neck, and sides of the body, lighter; middle of the belly and vent white; quills dusky, slightly margined at the tips with grey; tail dusky, spotted with yellow and dull white, somewhat in form of bars; legs black.

*A variety is said to possess a small claw behind, in lieu of a back toe. In the breeding season, both sexes appear black on the lower part of the breast: these feathers begin to shew themselves in March, and are perfected in May, at which time the female begins to lay. It is a common bird, found in most parts of the known world. With us it chiefly inhabits open ground, such as heaths, moors, and downs; in severe weather, the sea coast; but repairs to the more uncultivated waste of the northern mountains to breed. We have seen them in various parts of Scotland on swampy ground, upon the higher hills, and even on the lower lands covered with heath, amongst which they lay their eggs, four in number, about the size and shape of that of the lapwing; colour cinereous-olive, blotched with dusky. The young run as soon as they are excluded from the egg, and follow the old ones to the moist places in search of worms. At first they are covered with down of a dusky colour, and are incapable of flying for a considerable time. The parent birds are very tenacious of their young; become very bold

at this time; will light just before a dog, and run on the ground to entice him from their nest.*

GOLDEN THRUSH.—A name for the Golden Oriole.

GOLDFINCH (*Carduelis communis*, CUVIER.)

* Fringilla carduelis, *Linn.* Syst. 1. p. 318. 7.—*Gmel.* Syst. 1. p. 903. sp. 7.—*Lath.* Ind. Orn. 1. p. 449.—*Raii*, Syn. p. 89. A. 1. *Will.* p. 189.—*Briss.* 3. p. 53. 1. Le Chardonneret, *Buff.* Ois. 4. p. 187. t. 10.—*Ib.* pl. Enl. 4. f. 1.—Gros-bec Chardonneret, *Temm.* Man. d'Orn. 1. p. 376.—Distel Zeisig, *Bechst.* Naturg. Deut. 1. p. 200.—*Meyer*, Tasschenb. Deut. 1. p. 167.—*Frisch*, t. 1. f. 2. A. B. Goldfinch, or Thistlefinch, Br. Zool. 1. No. 124.—Arct. Zool. 2. p. 283. H.—*Will.* (Angl.) p. 246. t. 46.—*Albin*, 1. t. 64.—*Lath.* Syn. 3. p. 281. 4.—*Lewin's* Br. Birds, 2. t. 81.—*Mont.* Orn. Dict. 1.—*Walc.* Syn. 2. t. 219.—*Pult.* Cat. Dorset. p. 12.—*Bewick's* Br. Birds, p. t. 165.—*Shaw's* Zool. 9. p. 460. t. 68. bad copy from Bewick.—*Flem.* Br. Anim. p. 85.—*Syme*, p. 81.—*Selby*, pl. 55. fig. 8. 9. p. 284.

Provincial.—Gold-Spink. Goud-Spink. Gooldie.*

This beautiful bird is rather less than the chaffinch. The bill is white, with a black point; irides dusky; the forehead and chin rich scarlet; top of the head black; cheeks white, bounded with black; hind part of the head white; breast pale tawny brown; the coverts of the wings black; quill feathers dusky black, barred across with bright yellow; tips white; belly white; the tail feathers black; most of them marked with a white spot near their ends; legs whitish.

The female differs very little in plumage from the male: in general the smaller coverts of the wings are not so black. Young birds are brown about the head for some time after they leave the nest, and are by some called grey pates.

The Goldfinch is subject to variety in confinement; sometimes wholly black; others black and white, or quite white. A variety is sometimes taken by the birdcatchers with white spots under the throat: such is termed a cheverel. It makes a very elegant nest, formed externally of bents, moss, and liverwort, woven together with wool; lined sometimes with wool, or hair covered with thistle down, or willow cotton.

* The Goldfinch is more neat in the execution of its felting than the chaffinch, though I have seen several of the nests not look so pretty; for the Goldfinch's is rendered more formal and less richly varied in colouring, by the anxiety which the bird displays not to have a single leaf of moss or lichen projecting, all being smoothly felted with wool, which in some measure conceals the moss; whereas in the chaffinch's nest, the lichen usually conceals the wool. In other respects the two nests are much the same, as well as the eggs; those of the Goldfinch having their white ground more commonly tinged with blue, and hav-

ing fewer and rather brighter spots which are dark in the centre, and shade off into a thinly spread purple colour. Bolton describes the Goldfinch's nest as bound with blades of dried grass and a few small roots; a circumstance which has not fallen under my observation, though this may be sometimes resorted to; for it may be seen in the nests of some chaffinches and not in others. Bolton found his nest in the bough of a plane tree, (*Acer Pseudo platanus*,) but I have usually met with them in orchards, in elms, and more rarely in hawthorn hedges. The lining of thistle down ascribed to the nest of the Goldfinch, in most books of natural history, must be a mistake, at least with respect to the nests built in May and early in June; for none of our native thistles flower before the end of June, and none have down, I believe, before July. The bottom of the nest now before me is bedded with small tufts of fine wool not much spread, and the sides with the down of colts-foot, (*Tusilago farfara*,) and only one or two leaves or feathers; whereas the chaffinch uses little down, and seems partial to a lining either of cow's hair alone, or intermixed with a few soft feathers neatly woven into the cup of the nest. I have frequently seen the Goldfinches use nothing besides cotton-wool for a lining.

The truth is, that birds will in general take the materials for building, which they can most easily procure. "On the 10th of May, 1792," says Bolton, "I observed a pair of Goldfinches beginning to make their nest in my garden; they had formed the ground work with moss, grass, &c., as usual, but on my scattering small parcels of wool in different parts of the garden, they, in a great measure, left off the use of their own stuff, and employed the wool. Afterwards, I gave them cotton, on which they rejected the wool and proceeded with the cotton; the third day I supplied them with fine down, on which they forsook both the other and finished their work with this last article. The nest, when completed, was somewhat larger than is usually made by this bird, but retained the pretty roundness of figure and neatness of workmanship, which is proper to the Goldfinch. The nest was completed in the space of three days, and remained unoccupied for the space of four days; the first egg not being laid till the seventh day from beginning the work."[1]

Grahame is correct in saying it uses the down of willows and cannach, (*Eriophoroum polystachion*.) His sketch is worth quoting:

> "The goldfinch weaves with willow down inlaid,
> And cannach tufts, his wonderful abode;

[1] Harmonia Ruralis, i. Pref. 6.

Sometimes suspended at the limber end,
Of plane tree spray among the broad leaved shoots.
The tiny hammock swings to every gale;
Sometimes in closest thickets 'tis concealed,
Sometimes in hedge luxuriant where the briar,
The bramble, and the plum-tree branch;
Warp through the thorn, surmounted by the flowers
Of climbing vetch and honeysuckle wild."[1]*

The eggs are four or five in number, of a bluish white, with a few small spots, chiefly at the larger end. It sometimes builds in hedges, but most commonly in trees, especially those which are evergreen. The native song of this bird is not inelegant, but it is seldom pure in confinement; it readily breeds with the canary bird; the production are mules, and are generally termed the canary Goldfinch. Their principal food is seed of various kinds, particularly the thistle and teasel; they are fond of plantain, chickweed, and hempseed.

*"The Goldfinch," says Syme, "is easily tamed and easily taught, and its capability of learning the notes of other birds is well known; but the tricks it may be taught to perform are truly astonishing. A few years ago the Sieur Roman exhibited his birds, which were Goldfinches, linnets, and canaries. One appeared dead, and was held up by the tail or claw without exhibiting any signs of life; a second stood on its head with its claws in the air; a third imitated a Dutch milk-maid going to market, with pails on its shoulders; a fourth mimicked a Venetian girl looking out at a window; a fifth appeared as a soldier, and mounted guard as a sentinel; and the sixth acted as a cannoneer, with a cap on its head, a firelock on its shoulder, and a match in its claw, and discharged a small cannon. The same bird also acted as if it had been wounded. It was wheeled in a barrow, to convey it, as it were, to the hospital; after which it flew away before the company: the seventh turned a kind of windmill; and the last bird stood in the midst of some fire-works which were discharged all round it, and this without exhibiting the least symptom of fear.

"They may also be taught to draw up little buckets or cups with food and water. To teach them this, there must be put round them a narrow soft leather belt, in which there must be four holes—two for the wings, and two for the feet. The belt is joined a little below the breast, where there is a ring, to which the chain is attached, that supports the little bucket or cup. We have seen both the Goldfinch and

[1] Birds of Scotland, p. 49.

lesser redpole perform this action, but in a different manner. Their cage had no wires,—only a back-board, a bottom-board, and one perch. To one foot of the bird was attached a light slender chain, which allowed it more exercise than it could have had in the common wire cage; at the outer edge of the bottom-board was a ring, through which ran the chain, to each end of which were fastened the little buckets that held the food and water, which the bird drew up with its foot and bill; and as one bucket was drawn up, the other sunk, thus lessening the difficulty, and lightening the task."

It appears to be a vain bird; for if a looking-glass is placed before it, the reflection of its own gay feathers seems greatly to delight it. The Goldfinch is a long-lived bird. Willughby mentions one that lived twenty-three years in a state of confinement.*

GOOLDIE.—A name for the Goldfinch.

GOOSANDER (*Mergus merganser*, Linnæus.)

Mergus merganser, *Linn.* Syst. 1. p. 208. 2.—*Gmel.* Syst. 2. p. 544.—*Raii*, Syn. p. 134. A. 1.—*Will.* p. 255. t. 64.—Ind. Orn. 2. p. 828. 1.—*Briss.* 6. p. 231. t. 32.—*Ib.* 8vo. 2. p. 423.—Le Harle, *Buff.* 8. p. 267. t. 23.—*Temm.* 2. 881.—Goosander, or Merganser, Br. Zool. 2. No. 260. t. 92. f. 1.—*Ib.* fol. 147.—Arct. Zool. 2. No. 465.—*Ib.* Supp. p. 73.—*Will.* (Angl.) p. 335. t. 64.—*Lath.* Syn. 6. p. 418. 1.—*Lewin's* Br. Birds, 6. t. 231.—*Pult.* Cat. Dorset, p. 19.—*Walc.* Syn. 1. t. 79.—*Don.* Br. Birds, 3. t. 49.—Greater Goosander, *Linn.* Trans. 4. p. 122.

FEMALE AND YOUNG.

* Mergus castor, *Gmel.* Syst. 1. p. 545. sp. 2. var.—*Lath.* Ind. 2. 829. sp. 2.—Mergus rubricapillus, *Gmel.* Syst. 1. p. 545.—Dun Diver, Sparling Fowl, *Lath.* Syn. 6. p. 420, 421.—Supp. 1. p. 270.—*Temm.* 2. 885.—*Flem.* Br. Anim. p. 128. 129.

Provincial.—Jack-saw.*

This is the largest species of merganser; weight about four pounds; length two feet four inches. The bill three inches long, narrow, serrated, or toothed, on the edges of both mandibles; the tip of the upper hooked; colour red; irides the same; the head and upper part of the neck glossy greenish black; the feathers on the crown and back of the head are long and loose; the rest of the neck, breast, and under parts, white; the sides, above the thighs, undulated with dusky lines; the upper part of the back black; lower part of the back, rump, and tail coverts, brownish ash-colour; the lesser wing coverts white; the rest ash-colour, with some white; the greater quill-feathers are black, with ash-colour on the interior webs of some of the inner ones; the secondaries white, margined with greenish black on the outer webs; the scapulars nearest the body black, the others white; the tail consists of eighteen ash-coloured feathers, with dusky shafts; legs orange: in some specimens the breast is of a rosy buff-colour.

*Mr. Simmonds remarks that there is so much similarity in the

structure of the *Mergus merganser* and *M. castor*, even in the intestines as well as in the *trachea*, *vertebræ* of the neck, and number of tail feathers, (which in both are eighteen,) as to warrant a conclusion that they are the same, differing only in age or sex. But this information does not advance us one step towards clearing up this long-contested point. It has long been known that males in the plumage of *Mergus castor*, or dun-diver, have been proved by dissection; and we have before been told that they possessed a *tracheal* labyrinth similar to that of *Mergus merganser*, or Goosander; but we should have been glad to have been informed whether in the *trachea* itself there had been one or two enlargements; for otherwise we gain no additional knowledge.

We have before remarked, that later observations have proved that at least some birds in the habit of the dun-diver have but one *tracheal* enlargement, besides the labyrinth; whereas the Goosander has two, both of which are figured in the Berlin Transactions. To this may be added the remarks of an excellent ornithologist of the day, and a critical observer, Willughby, who, speaking of the Goosander, says, "It hath a huge bony labyrinth on the windpipe, above the divarications; and the windpipe hath, besides, two swellings out, one above another, each resembling a powder puff."

This species appears to be common on the Tornea, in Finland, during the breeding season, and their eggs are much coveted by the natives, who place decayed trees that are hollow near the banks of the river, which these birds enter, and there deposit their eggs, to the number of twenty; these the Finlanders take out, from time to time, but always leave two or three at least, in order to continue the breed.

*The young and female have been described by several British naturalists as a distinct species, under the name of the dun-diver; the inquiries of the late Mr. Simmonds, supported by the testimony of Dr. Fleming, identify it in structure, numbers, and dimensions of the *trachea*, with the male Goosander. Montagu thus describes his dun-diver.

Bill near three inches long, narrow, of a dull purplish red; the upper mandible hooked at the end; nail black; the edges finely serrated; irides purplish; the upper part of the head ferruginous brown; the rest of the head and upper part of the neck bright ferruginous; the feathers on the nape much elongated; chin and throat white; the lower part of the neck before, and sides of the breast, ash-colour and white mixed; the lower part of the neck behind, the back, wing coverts, scapulars, and tail, fine ash-colour; greater quills black; six of the secondaries are white at their ends; the greater coverts immediately impending

them marked the same; the rest of the quills are pale ash colour; breast and belly fine yellowish buff; the tail consists of twenty feathers; legs and feet red orange.

The Goosander sometimes visits our rivers and lakes in severe winters, but retires to the more northern latitudes of Greenland and Iceland, where it breeds. In the Orkneys and Hebrides it is found the whole year round, while in the other districts it is only a winter visitant. It is not uncommon on the continent of Europe and Asia, but most plentiful towards the north. It is a winter inhabitant of the sea shore, and fresh water lakes of America, where they usually associate in small parties of six or eight. They disappear from that country in the month of April, and return in November. Its food consists entirely of fish, for which it dives with great celerity, and holds its slippery prey with great security, by means of its toothed bill, which is admirably adapted to the purpose.*

GOOSE (*Anser palustris*, FLEMING.)

Lister, Phil. Trans. 15. 175. p. 1159.—*Ray*, Syn. Av. p. 138.—Anas Anser (ferus) *Gmel.* Syst. 1. p. 510. sp. g.—Anser sylvestris, *Briss.* 6. p. 265. 2.—Oie sauvage, *Buff.* 9. p. 30. t. 2.—Wild Goose, *Will.* p. 358.—*Albin*, 1. p. 90.—Grey Lag Goose, *Penn.* Br. Zool. 2. p. 266.—Arct. Zool. 2. p. 473.—*Lath.* Syn. 6. p. 459. 31.—*Lewin's* Br. Birds, 7. p. 238.—*Flem.* Br. Anim. p. 126.—Common Goose, *Mont.* Dict.

Provincial.—Fen Goose. Stubble Goose.

This is the original of our common domestic Goose. It weighs eight or nine pounds; length about thirty-three inches. The bill is large, and elevated, of a flesh colour, the nail white; irides greyish; the head and neck ash-colour, mixed with rust colour; back dusky grey; the breast and belly whitish, clouded with ash-colour; scapulars grey, edged with white; the wing coverts are composed of different shades of cinereous; margins of the feathers lightest, the lesser coverts darker; quill feathers more or less black at their ends; the upper and under coverts pure white; the tail feathers dusky, tipped with white; the outer ones almost entirely white; legs flesh coloured; and claws black.

These birds are said to reside in the Lincolnshire fens during the whole year, where they breed, and the young are frequently taken, and become tame, although the greater part of the large flocks seen with us in the winter, doubtless retire northward to breed. They lay eight or nine eggs of a dirty white colour, and are frequently killed on the downs, in the south of England, feeding on green wheat. We remember one being shot in the wing, by a farmer, in the neighbourhood of the Wiltshire downs, which was kept alive for many years, but would never associate with the tame ones. This and most of the other species are indiscriminately called wild geese.

* In the Environs of London, by Mr. Lysons, an anecdote is given of the partiality of a Canada Goose for a yard dog: the Goose could only be separated by force from her canine friend, and after his death fell a sacrifice, by endeavouring to possess that seat in the kennel where she had so long been fostered with the kindest friendship by his predecessor.

A similar attachment we recollect of the China Goose, the male of which had been killed by a young pointer. Ponto was most severely punished for this misdemeanor, and had the dead bird tied to his neck. The solitary Goose became extremely distressed for the loss of her partner and only companion, and probably having been attracted to the dog's kennel by the sight of her dead mate, she seemed determined to persecute Ponto by her constant attendance and continual vociferations; after a little time, however, a strict amity and friendship subsisted between these incongruous animals: they fed out of the same trough, lived under the same roof, and in the same straw-bed kept each other warm; and when the dog was taken to the field, the inharmonious lamentations of the Goose for the absence of her friend were incessant.

M. Cuvier has published a brief description of a bird produced between a Swan and a Goose, which in fact amounts to its being a perfect Goose in every thing but size like its mother, which it greatly exceeds.

The common Goose, from which our domestic breed is descended, must have been domesticated many centuries; and it is rather surprising that many other species of the larger birds, especially of the aquatic kind, have not been brought under the dominion of man.

The common or grey-legged Goose was formerly indigenous to this country, and bred in the then vast, extensive, and impenetrable swamps and fens contiguous to the eastern coasts of the kingdom. The labour of man, by draining and cultivating these fens and morasses, has entirely depopulated these places of their native inhabitants; but he has wisely selected the Goose from the number of the feathered tribe that once roamed at large over these extended flats, and by domestication, and conversion into private property, has made it prove to him a source of real wealth. These swamps, which in more barbarous times yielded a scanty subsistence to the natives, by the promiscuous capture of such birds, are now teeming with them in a domesticated and highly improved state. Those who have never witnessed the abundance that are fed in some of the fens in Lincolnshire, can form no idea of this real golden treasure, nor of the beauty of the innumerable flocks that enliven those dreary tracts, as yet too moist to afford wholesome pasture for sheep.

In few countries do the value of Geese appear to be fully appreciated, for with proper management, few animals are of greater worth. If we consider that these birds not only afford us a wholesome but a delicate food; their smaller feathers and down contribute so largely to our nightly repose; their quills, so common in use for transmitting our thoughts to the present and future ages, we may truly estimate their intrinsic value as little inferior to the sheep; for the *wool* of the Goose is equally valuable, and the flesh as eagerly sought after. Upon the whole, therefore, a Goose is a highly profitable animal, little inferior to that of a sheep, in certain situations; and thousands are annually bred where that animal could not exist. If the produce of the feathers, plucked three times a year, and the quills twice, and that upon an average each Goose produces six or seven young for the market annually, are considered, how much short they are of the profit yielded by an ewe in the same time, we shall leave to the calculation of the agriculturist.

In most parts of the kingdom, the Goose is an appendage to the farm-yard, and being a hardy bird, and subject to few distempers, requires no care, and is neither fed with hay nor corn, consequently her value is clear profit.

In the west of England, where geese are plentiful, but not associated into large flocks, they are neither cultivated nor managed with advantage: for though in some parts of Devonshire the poorest persons would deem themselves poor indeed, that could not sleep upon a feather bed; yet it is not the custom in that county to extend a profit upon these birds, by shearing or plucking their feathers, although double the value of the wool of the common sheep.*

GORCOCK.—A name for the Moor fowl.

GOR CROW.—A name for the common Crow.

GOSHAWK (*Astur palumbarius*, BECHSTEIN.)

ADULT.

*Falco palumbarius, *Linn.* Syst. 1. p. 130.—*Gmel.* Syst. 1. p. 269. sp. 30.—*Lath.* Ind. Orn. 1. p. 29. sp. 65.—*Meyer*, Tasschenb. Deut. 1. p. 49.—Faun. Suec. No. 67. *Raii*, Syn. p. 18. 1.—*Will.* p. 5. t. 3. and 5.—Astur, *Briss.* 1. p. 317.—*Ib.* 8vo. p. 91.—L'Autour, *Buff.* Ois. 1. p. 130.—*Ib.* pl. Enl. 418.—*Temm.* Man. d'Orn. 1. p. 55. 2d edit.—Hunderhabicht, *Bechst.* Tasschenb. Deut. 1. p. 28.—Goshawk, Br. Zool. 1. No. 52. t. 24.—Arct. Zool. 2. No. 99.—*Lath.* Syn. 1. p. 58.—*Ib.* Supp. p. 16.—*Mont.* Orn. Dict.—*Ib.* Supp.—*Albin*, 2. t. 8.—*Lewin's* Br. Birds, 1. t. 9.—*Walc.* Syn. 1. t. 9.—*Bewick's* Br. Birds, 1. p. 23.—*Shaw's* Zool. 7. p. 118.—*Low's* Faun. Orcad. p. 36.

YOUNG.

Falco Gallinarius, *Gmel.* Syst. 1. p. 266. sp. 73.—Falco gentilis, *Gmel.* p. 270. sp. 13.—*Lath.* Ind. Orn. 1. p. 29. sp. 66.—L'Autour sors, *Buff.* pl. Enl. pl. 461. and 423.—Gentil Falcon, *Mont.* Dict.—Greater Buzzard, *Lath.* Syn. 1. p. 49.—*Selby*, pl. 12. and 12.* p. 31.*

This is a large species, superior in size to the buzzard; length twenty-two inches or more; the bill is blue, tip black; cere yellowish green; irides yellow.

The head, hind part of the neck, back, and wings, deep brown; over the eye is a white line, and a broken patch of the same colour on the side of the neck; the breast and belly marked with numerous transverse bars of black and white; the tail is long, and ash coloured, with four or five dusky bars; legs yellow; claws black.

The Goshawk is rarely found in England, but is not uncommon in the wild and mountainous parts of Scotland, where it is known to breed in the forest of Rothemurchus, and on the woody banks of the Dee. They are said to be numerous in the Orkney islands, where they breed in the rocks and sea cliffs. They more generally build however in lofty fir trees, and lay from two to four eggs, of a bluish white, marked with streaks and spots of reddish brown. Its flight is described to be very rapid, generally low, and it strikes its prey on the wing, near the ground, being incapable of mounting. If its prey take refuge, it will wait patiently on a tree, or stone, until the game, pressed by hunger, is induced to move; and as this hawk is capable of great abstinence, it generally succeeds in taking it. Colonel Thornton informs us, that he flew one at a pheasant, which got into cover, and the hawk was lost; at ten o'clock next morning the falconer found her, and just as he caught her the pheasant ran and rose. According to Meyer, it will prey on its own young, but its principal food is wild ducks, hares, and rabbits. In the young, the head, neck, and belly, are of a rufous colour, with long brown spots, and tips of the tail white. In this plumage they have been termed Gentil Falcons. In the days of falconry, they were held in high repute for hunting cranes, geese, and the larger sorts of game, and were considered by falconers, the best and most courageous of the short-winged hawks.

The Goshawk is common in France, Germany, and Russia; it is also found in America, but is rare in Holland.

GOUD SPINK.—A name for the Goldfinch.

GOURDER.—A name for the Petrel.

GOWK.—A name for the Cuckoo.

GRALLÆ (Linnæus.)—The Linnæan order of Wading Birds.

GRALLATORES (Illiger.)—Wading Birds.

GRASSHOPPER LARK.—A name for the Grasshopper Warbler.

GRASSHOPPER WARBLER (*Curruca Locustella*, Fleming.)

*Sylvia locustella, *Lath.* Ind. Orn. 2. p. 515. sp. 25.—Curruca locustella, *Flem.* p. 69.—Locustella avicula, *Raii*, Syn. p. 70. A. 7.—*Will.* p. 151.—L'Alouette

locustelle, *Buff.* Ois. 5. p. 42.—*Ib.* pl. Enl. 581. f. 3. under the title of Fauvette tachetée.—Bec-fin locustelle, *Temm.* Man. d'Orn. 1. p. 184.—Fleuschrechensanger, *Meyer,* Tasschenb. Deut. 1. p. 230.—*Bechst.* Naturg. Deut. 3. p. 562. sp. 23.—Grasshopper Warbler, Br. Zool. 1. No. 156.—Arct. Zool. 2. p. 419. —*Lath.* Syn. 4. 429. t. 20.—*Ib.* Supp. 2. p. 240.—*White's* Hist. Selb. p. 45.—*Lewin's* Br. Birds, 3. t. 98.—*Mont.* Orn. Dict.—*Ib.* Supp.—*Bewick's* Supp. to Br. Birds.—Titlark that sings like a grasshopper, *Will.* (Angl.) p. 207.—*Selby,* pl. 45. ** fig. 1. p. 166.*

This species is less than the whitethroat; length five inches and a half; weight about three drams and a quarter. The bill is dusky above, whitish beneath; irides light hazel. The whole upper parts of the bird are olivaceous-brown; the middle of each feather dusky, except on the back of the neck, which gives it a pretty spotted appearance; eyelids, chin, throat, and belly, yellowish white; breast, sides, and thighs, inclining to brown, the two last faintly streaked with dusky; under tail coverts very pale brown, marked down the shafts with long pointed streaks of a dusky colour; quills and tail dusky brown, lighter on their exterior edges, tinged with olive; the tail is much cuneiform, and the feathers somewhat pointed, which is a very marked and peculiar character in this species; the outer feather being full an inch shorter than the middle ones, and nearly rounded at the tips, the wing remarkably short, reaching very little beyond the base of the tail; legs very pale brown; claws light horn-colour; hind claw short and crooked.

In shape the Grasshopper Warbler very much resembles the sedge bird; is rather inferior in size, and at once distinguished by its spotted back.

It is not a plentiful species, but probably appears less so by its habit of concealing itself amongst furze and thick hedges, discovering their place of concealment only by their singular cricket-like note, which is so exactly like that of the mole cricket, as scarcely to be distinguished.

As soon as the females arrive, which is in about ten days after, the males no longer expose themselves, and are almost silent till about the dusk of the evening, when they are incessantly crying; possibly to decoy the larger species of grasshoppers, or mole cricket, which begin their chirping with the setting sun. The female very much resembles the other sex; and is so shy as to be obtained with difficulty. On the eighteenth May, we found the nest of this bird in a patch of thick brambles and furze, with two eggs; but as they had not been incubated, probably more would have been laid. The nest is of a flimsy texture, like that of the whitethroat, composed of dried stalks and goosegrass, lined with fibrous roots. The eggs are of a spotless bluish white, four or five in number, weighing about twenty-one grains. From the scarcity

of the bird, and the artful manner in which it conceals its nest, it is rarely found; nor has any author noticed it.

We have found it in Hampshire, in South Wales, and in Ireland, but no where so plentiful as on Malmsbury Common, in Wiltshire, to which place the males come about the second week in April. At this time only they expose themselves upon the top branches of the furze, and are continually making their singular chirping notes, their only song. In this situation we have killed several.

*Some confusion has arisen respecting this bird, from an idea that it is a lark, and not a Warbler. It is, however, in every respect dissimilar in character and habits. It has no long claw behind, resides in thickets, and is incapable of running on the ground like a lark, but moves by hopping, so that the confusion can only arise from ignorance of the bird's habits.

Montagu was not able to trace this species far north, nor in the south-eastern counties, the borders of Gloucestershire and Hampshire being its utmost range, and from thence probably in all the western counties, as he found it in Ireland. During the whole course of a tour from Bath to London, and thence through the eastern counties, and again from Lincolnshire to Somersetshire, undertaken during the spring, the well-known note of this bird never once assailed his ears, although the other migrative species of the same genus, were heard in various parts. In the same year, several species were observed about Kingsbridge, one of which was shot by Mr. Vaughan, and placed in his collection.

"It is very rare," says Mr. Sweet," in the neighbourhood of London, and I have never seen more than a single living one, which I caught in a trap about the middle of August, 1823, in the Five Fields, near Grosvenor Place. I kept it till the February following, when it died from cold caught by washing itself. It never attempted to sing."[1] I have frequently met with it in Scotland, in the haugh at Musselburgh, and in Ayrshire, where its singular note has been strangely mistaken for the sound of the Rattle Snake; and Selby informs us that he has found it in several parts of Northumberland, where it was found to haunt low and damp situations, overgrown with furze, bramble, and underwood. Besides its natural grinding note, this bird has been said to utter a very agreeable warble, and the male to entertain his mate with a nocturnal song. On the contrary, we believe it has no other

[1] Sweet's Brit. Warblers, p. 12.

note than that sibilous one, from which the name is derived, and which is more frequently heard about dusk than at any other time.

The young, when disturbed, immediately quit the nest, although only half-fledged, trusting to their instinctive power of concealment; it is a regular summer visitant with us, and its peculiar cry is seldom heard later than July or August.

GREAT AWK.—A name for the Awk.

GREAT BLACK WOODPECKER (*Picus martius*, LINNÆUS.) This bird has been occasionally found in Britain as a straggler. Pulteney mentions two or three having been shot in Dorsetshire, and Lord Stanley shot one in Lancashire. Another is said to have been shot in 1805, in Battersea fields, on the trunk of an old willow. This species measures eighteen inches in length, and twenty-nine in breadth; it weighs about ten ounces; the plumage black, with the exception of the crown, which is of a bright red; the wing consists of nineteen quills, and the tail of ten feathers. It was unknown to Willughby as a British bird, and we have even now no evidence of its breeding, or performing its annual visit to this country.

GREAT BLACK-HEADED GULL.—A name for the Laughing Gull.

GREAT BLACK-BACKED GULL.—A name for the Cobb.

GREAT CINEREOUS SHRIKE.—A name for the Butcher Bird.

GREAT COOT.—A name for the Coot.

GREAT CRESTED GREBE.—A name for the Loon.

GREAT EARED OWL.—A name for the Eagle Owl.

GREAT HORNED OWL.—A name for the Eagle Owl.

GREAT OWL.—A name for the Eagle Owl.

GREAT SNIPE (*Scolopax major*, LINNÆUS.)

Scolopax major, *Gmel.* Syst. 2. p. 661.—Ind. Orn. 2. p. 714. 4.—Scolopax paludosa, Ind. Orn. 2 p. 714.—*Gmel.* Syst. p. 661—Scolopax Gallina, *Sepp.* Vög. 3. t. 127.—Scolopax media, Ger. Orn. 4. p. 446.—Scolopax atra, *Ib.* 450.—Becasse des Savanes, *Buff.* 7. p. 481.—Savanah Woodcock, *Lath.* Syn. 5. p. 132.—Great Snipe, Br. Zool. 2. No. 188.—Arct. Zool. 2. p. 470. B.—*Lath.* Syn. 5. p. 133. 4.—*Lewin's* Br. Birds, 4. t. 157.—*Walc.* Syn. 2. t. 137.—*Pult.* Cat. Dorset. p. 14.—*Lath.* Supp. 2. p. 308.—Rural Sports, p. 444.—*Bewick's* Br. Birds, 2. p. 67.—*Flem.* Br. Anim. p. 105.

This bird weighs about eight ounces; length sixteen inches. The bill is four inches long, like that of the woodcock. Crown of the head black, divided down the middle by a pale stripe; above and beneath each eye is another stripe of the same; the upper parts of the body very like the common snipe; the under parts white; on the neck, breast, and sides, the feathers are edged with dusky; quills dusky; tail reddish brown or rust-colour, barred with black; the two middle feathers plain; legs black.

This species is rarely met with in England; it was first described by Mr. Pennant from a specimen shot in Lancashire, and placed in the Leverian museum. It is said to have been met with in Kent; and we are informed one was killed in Wiltshire, which weighed seven ounces and a half.

It is possible this bird is sometimes killed together with the common species, and not discriminated by the sportsman, who only takes it for a fine large snipe. Dr. Latham assures us he saved one from the hands of the cook at a friend's house, where, without discrimination, it was intended for the table with several of the common kind, and that it is now in his museum.

In the second supplement to the General Synopsis, the Great Snipe and the Savanna Woodcock are, we think, very judiciously brought together, an arrangement which we have also adopted for this work; he also gives a very full description, from a recent subject, shot in Suffolk in the month of September, and which exactly corresponds with a specimen in our collection.

GREAT SPOTTED WOODPECKER.—A name for the Whitwall.

GREAT TITMOUSE.—A name for the Ox-eye.

GREAT WHITE HERON (*Ardea Egretta*, Linnæus.)

*Ardea alba, *Linn.* Syst. 1. p. 239. 24.—*Gmel.* Syst. 2. p. 639.—Ind. Orn. 2. p. 695. 65.—Ardea alba major, *Raii*, Syn. p. 99. A. 4.—*Will.* p. 205. t. 49.—Ardea egretta, *Temm.* 2. p. 572.—*Flem.* Br. Anim. p. 95.—Ardea candida, *Briss.* 5. p. 428. 15.—*Ib.* 8vo. 2. p. 322.—Le Heron blanc, *Buff.* 7. p. 365—Great White Heron, Br. Zool. 2. p. 175. t. 62.—*Ib.* fol. 117.—Arct. Zool. 2. No. 234.—*Ib.* Supp. p. 66.—*Will.* (Angl.) p. 279. t. 49.—*Lath.* Syn. 5. p. 91. 60.—*Lewin's* Br. Birds, 4. t. 150.—*Mont.* Orn. Dict.—*Bewick's* Br. Birds, 2. p. 13.—*Wilson's* Amer. Orn. 7. p. 107.

This elegant bird can only be considered as a straggler; one instance only of its occurrence in this country being recorded. It is described by Wilson as being a very shy timid bird, and very difficult to be procured. "Its principal residence," he says, "is in the regions of the south, being found from Guiana, and probably beyond the line to New York. Its favorite haunts are in vast inundated swamps, rice fields, the low marshy shores of rivers, and such like places, where, from its size and colour, it is very conspicuous at a great distance.

This bird measures four feet from the extremities of the wings, and three feet six inches from the tip of the bill to the end of the tail; the train extending seven or eight inches further; this train is composed of a great number of long thick tapering shafts, arising from the lower parts of the shoulders, thinly furnished on each side with fine flowing hair like threads, of several inches in length, covering the lower part of the back, and falling gracefully over the tail, which it entirely conceals; the whole plumage being of a snowy whiteness, except the

train, which is slightly tinged with yellow. The bill is six inches in length, of a rich orange-yellow, tipt with black; irides pale orange, giving the bird a sharp and piercing aspect; legs long and stout, of a black colour." When of full age, the male and female are alike; during the first season it is entirely destitute of the long flowing plumes, and is so different from the bird in perfect plumage, as to be considered by many a distinct species. The one found in this country, was in a very imperfect state of plumage, and apparently worn out with fatigue.*

GREATER LOON.—A name for the Gaunt.

GREATER PETTYCHAPS.—A name for the Fauvette.

GREATER REDPOLE.—A name for the Linnet.

GREATER WING COVERTS.—*Those feathers which immediately cover the base of the quills.*

GREBE (*Podiceps*, Linnæus.)—A genus of birds.

GREEN BIRD.—A name for the Greenfinch.

GREEN CORMORANT.—A name for the Cormorant.

GREENFINCH (*Fringilla chloris*, Temminck.)

*Fringilla chloris, *Temm.* Man. d'Orn. 1. p. 346. 2.—Loxia chloris, *Linn.* Syst. 1. p. 304. sp. 27.—*Lath.* Ind. Orn. 1. p. 382. sp. 39.—*Raii*, Syn. p. 85. A.—*Will.* p. 129. 44.—*Briss.* 3. p. 190. 54.—Le Verdier, *Buff.* Ois. 4. p. 172. t. 15.—*Ib.* pl. 267. f. 2. male.—Gros-bec Verdier, *Temm.* Man. d'Orn. 1. p. 346.—Gruner Kernbeisser, *Bechst.* Naturg. Deut. 3. p. 45.—*Frisch*, t. 2. f. 2. A. B.—De Groenling, *Sepp.* Nederl. Vög. 1. t. 1. p. 73.—Greenfinch or Green Grosbeak, Br. Zool. No. 117.—Arct. Zool. 2. p. 253. B.—*Lath.* Syn. 3. p. 134. 36.—*Ib.* Supp. p. 152.—*Albin*, 1. t. 58.—*Lewin's* Br. Birds, 2. t. 69.—*Mont.* Orn. Dict. 1.—*Pult.* Cat. Dorset. p. 11.—*Walc.* Syn. 2. t. 208.—*Bewick's* Br. Birds, t. 136.—*Flem.* Br. Anim. p. 83.—*Selby*, pl. 54. fig. 3. p. 263.

Provincial.—Green Linnet. Green Bird.*

This species is rather larger than the house-sparrow; weight nearly eight drams; length six inches and a half; the bill is thick and whitish; irides dark hazel; the head and back yellowish green; the edges of the feathers greyish, inclining to ash-colour about the sides of the head and neck; the rump and breast more yellow; the greater quills are yellow on the outer webs; those next the body greyish; the tail is somewhat forked; the middle feathers dusky; the four outer feathers on each side are yellow on their exterior webs; legs flesh-colour. The plumage of the female is much less vivid, inclining to brown.

This is a very common bird in most parts of England in summer; becomes gregarious in winter, flocking with chaffinches and yellow-hammers; but in severe weather entirely quits some districts. It is rather a late breeder. The nest is composed of small dry twigs, bents, and moss, interwoven with wool, and lined with hair and feathers; is commonly placed amongst ivy surrounding a tree, or in some thicket. *Those which I have examined are composed externally of a rather rough basket-work of roots, sometimes interwoven with moss, very

loosely put together on the outside, but increasing in compactness as the structure advances; and when a layer of fine roots has been worked as a middle wall, the bird then begins a thick texture of hair, similar to that of the wagtail, but more neatly rounded and compact. The nest, however, is by no means so handsome as that of the chaffinch, and it is not quite so deep.* [1]

The eggs are four or five in number, white, speckled with rusty-red at the larger end, much like those of the linnet, but larger; their weight thirty-seven grains. Its food is principally seed and grain.

The native song of this bird is trifling, but in confinement it becomes very tame and docile, and will catch the notes of other birds.

GREEN GROSSBEAK.—A name for the Greenfinch.

GREEN-HEADED BUNTING (*Emberiza chlorocephala*, GMELIN.)

* *Gmel.* Syst. 2. p. 887.—Emberiza Tunstalli, *Lath.* Ind. 1. 418. 69.—Syn. 3. p. 211. 61.—Gen. Hist. 5. p. 298.—*Lewin's* Br. Birds, 2. p. 76.—*Brown*, Illust. p. 74. 30.—*Mont.* Dict.—*Flem.* Br. Anim. p. 77.

This species has the head and neck dull olive-green; back and wing coverts dusky brown, mixed with black; paler on the rump; the rest of the wings, breast, and belly, deep brown; tail brown, forked; legs yellowish, in other respects it resembles the yellow-hammer.

This bird is not mentioned by Temminck; while Latham and Fleming agree in thinking it a variety of the yellow-hammer, (*Emberiza citrinella*, LINNÆUS.) The one in Tunstal's collection, and figured by Brown, was caught in Mary-le-bone Fields. Colonel Montagu had one with the whole head and neck greenish yellow.*

GREEN LEGGED HORSEMAN.—A name for the Green Shank.

GREEN LINNET.—A name for the Greenfinch.

GREEN PLOVER.—A name for the Lapwing.

GREEN SANDPIPER (*Totanus ochropus*, TEMMINCK.)

Tringa Ochropus, *Linn.* Syst. 1. p. 250. 13.—*Gmel.* Syst. 2. p. 676.—Ind. Orn. 2. p. 729. 12.—Tringa Aldrovandi, *Raii*, Syn. p. 108. A. 7. 8.—*Will.* p. 222. 223. t. 55.—*Ib.* (Angl.) p. 300. 301. t. 55.—*Briss.* 5. p. 177. 1. t. 16. f. 1.—*Ib.* 8vo. 2. p. 259.—Tringa glareola!!! *Lath.* Supp. 2. p. 311.—Linn. Trans. 1. p. 128.—Totanus ochropus, *Temm.* 2. p. 651.—Becasseau, ou Cul-blanc, *Buff.* 7. p. 534.—Green Sandpiper, Br. Zool. 1. No. 201.—*Ib.* fol. 125. t. F. 2. f. 3.—Arct. Zool. 2. No. 389.—*Lath.* Syn. 5. p. 170. 12.—*Lewin's* Br. Birds, 5. t. 170.—*Pult.* Cat. Dorset. p. 15.—*Flem.* p. 103.—Wood Sandpiper, *Linn.* Trans. 1. p. 130. t. 2.

This elegant species weighs about three ounces and a quarter; length full ten inches; the bill is an inch and a half in length, very slender, and dusky; irides hazel; head, neck, and breast, are marked with numerous streaks of dusky and ash-colour, largest on the latter; over the eye a whitish streak; back, scapulars, and wing coverts, brown,

[1] Architecture of Birds, p. 244.

glossed with green; the two first marked with roundish small white spots; lower part of the breast, belly, upper tail coverts, and chin, white; the feathers under the wings dusky, with small bars of white shaped like the letter V; quills dusky; tail white; the two middle feathers marked with four dusky bars; the two next on each side with three, the fourth with two, and the two outer with one bar; legs dusky green; toes united at the base by a small membrane.

The Green Sandpiper is by no means plentiful in England; it mostly frequents pools and small shallow streams; is a solitary bird; comes to us about the middle of September, and continues as late as the end of April, when it departs northward to breed; is sometimes seen in pairs before it leaves us; is said to be found in Siberia and Iceland, and also in America. When disturbed it makes a very shrill whistling note as it flies. We have seen this bird as early as the second of August.

GREENSHANK (*Totanus glottis*, Bechstein.)

Scolopax glottis, *Linn.* Syst. 1. p. 245. 10.—*Gmel.* Syst. 2. p. 664.—Ind. Orn. 2. p. 720. 21.—Limosa grisea, *Briss.* 5. p. 267. 2. t. 23. f. 1.—*Ib.* 8vo. 2. p. 278.—La Barge variée, *Buff.* 7. p. 503?—Pluvialis major, *Raii*, Syn. p. 106. A. 8. p. 190. 6.—*Will.* p. 220. t. 55.—*Ib.* (Angl.) p. 298.—Green-legged Horseman, *Albin*, 2. t. 69.—Greenshank, Br. Zool. 2. No. 183.—*Ib.* fol. 121. t. C. 1.—Arct. Zool. 2. No. 379.—*Lath.* Syn. 5. p. 147. 18.—*Ib.* Supp. p. 245.—*Lewin's* Br. Birds, 4. t. 163.—*Walc.* Syn. 2. t. 142.—Cinereous Godwit, *Mont.* Dict.

Provincial.—Greater Plover.

The length of this species of snipe is fourteen inches; weight about six ounces. Bill about two inches and a half long, dusky, slender; irides hazel. The head, back and sides of the neck, and back, cinereous, streaked with dusky; from the upper mandible to the eye, a white streak; the under parts, from chin to tail, white, but the white part is narrow down to the fore part of the neck; lower part of the back and rump white; greater wing coverts, scapulars, and three or four of the quill-feathers next the body, brown, glossed with green; the edges of each feather scalloped with dusky and ash-colour, some of them barred on both webs; smaller coverts dusky; quills dusky, the inner webs of some spotted with white; tail white, crossed with dusky bars; legs very long and slender, of a dusky green colour; the outer toe united to the middle one as far as the first joint. In some, the coverts of the wings, scapulars, and upper part of the back, are ash-colour. Such are probably adults, for we have observed that the spots and bars frequently found on a variety of snipes and sandpipers, as well as others, in the autumn, are rarely met with in the spring. Some variation is also observed in the length of the bill and legs; and the bare part of the thigh is in some nearly two inches above the knee, in others not above an inch.

These birds are sometimes seen in small flocks on our coasts in winter, as also in the marshes and fens contiguous to the sea. Some few are supposed to remain with us all the summer, and to breed in our fens, from whence we received an egg, said to belong to this bird. It is rather less than that of the lapwing, and not very unlike in shape and colour, being of an olive-brown, covered with dusky spots all over, but smaller than those of the lapwing. The greater part, however, retire northward to breed, and are found in Sweden, Russia, and Siberia. It has also been observed in America, in the province of New York. *Montagu conjectures that the cinereous godwit of Pennant is only a variety of the Greenshank. One in the Leverian museum was marked the grey godwit: it was smaller than the godwit, the bill and legs shorter, the tail barred, dusky, and white nearly to the base. Fleming is of opinion that the black sandpiper of Pennant is the Greenshank in its winter dress.

A very elegant variety in the possession of Mr. Bullock, had the upper parts marked as usual, but darker, and the spots larger on the top of the head, back, and scapulars; the newly moulted feathers on the two last, known as such by their comparative brightness, were black, with the margins deeply and angularly scolloped with white, the markings strong, particularly on the tertials; tail coverts white; the rump having a mixture of dusky black and grey in bars; the tail barred with zigzag lines; throat white; fore part of the neck and breast streaked and spotted with black, the spots increasing in size on the breast; middle of the belly white, but feathers on the side barred with black; some of the under tail coverts plain white, others barred with black; the legs appeared to have been yellowish or pale green; size and length of the bill and legs as usual. It was not noticed at what season this bird was shot, but it was most probably in the spring, a little before its usual time of departure, and it had just began to throw out its summer plumage on the back, scapulars, and wing coverts, where the spots were larger, and much better defined, than on the old intermediate feathers.*

GREENWICH SANDPIPER.—A name for the young Ruff.

GREEN WOODPECKER.—A name for the Popinjay.

GREEN WREN.—A name for the Wood Wren.

GREY or GRAY.—A name for the Gadwall.

GREY COOT-FOOTED TRINGA.—A name for the Phalarope.

GREY FALCON.—A name for the Hen Harrier.

GREY GODWIT.—A name for the Godwit.

GREY GULL.—The young of the Gull in their winter plumage.

GREY-HEADED DUCK.—A name for the King Duck.

GREY KATE.—A name for the young Goldfinch.

GREY LAG GOOSE.—A name for the common Goose.

GREY LAPWING (*Vanellus melanogaster*, BECHSTEIN.)

Tringa squaturola, *Gmel.* Syst. 1. p. 682. 23.—*Lath.* Ind. Orn. 2. p. 729. 11.—Pluvialis cinerea, *Raii*, Syn. p. 3. A. 3.—Vanellus griseus, *Briss.* 5. p. 100. 2.—Vanellus melanogaster, *Bechst.* Naturg. Deut. 4. p. 356.—Squaturola cinerea, *Cuv.* Reg. Anim.—Vanneau pluvier, *Buff.* Ois. 8. p. 68.—Grey Plover, *Will.* (Angl.) p. 309. t. 57.—*Albin*, 1. t. 76.—Swiss Sandpiper, *Lath.* Syn. 5. p. 167.—Grey Sandpiper, Br. Zool. 2. No. 191.—*Ib.* fol. 122.—Arct. Zool. 2. No. 393.—*Lath.* Syn. 5. p. 168. 11.—Supp. p. 248.—*Lewin's* Br. Birds, 5. t. 169.—*Walc.* Syn. 2. t. 146.—*Pult.* Cat. Dorset. p. 15.—*Flem.* Br. Anim. p. 111.

This species rather exceeds the golden plover in size; the weight about seven ounces; length twelve inches. Bill black, one inch and a quarter in length; irides dusky; the upper part of the head, the neck, back, scapulars, and wing coverts, dusky; the feathers more or less margined and tipped with ash-colour, least so on the head and neck; and on the coverts the grey predominates, and is almost of a white; the cheeks and throat white, with a few dusky lines; belly and under tail coverts white; quill-feathers black; the inner webs more or less white, as well as the shafts; from the fifth some white begins to appear on the outer web down the shaft, which increases in the next, and from the seventh to the tenth the whole of the outer web is white, except at the point; the tail is white, elegantly barred with black; on the middle feathers are six or seven; the inner webs of the lateral ones barred only near the end; the outermost has only one faint bar at the tip; legs dusky; back toe extremely small; the claw almost adhering to the leg; the under scapulars, or those long feathers underneath the wing at the base, in the several specimens we have examined, were black; and the rump and upper tail coverts white, barred with black.

A variety is said to have the forehead, throat, and rump, white; and the upper tail coverts white, edged with grey and pale yellow.

The Grey Lapwing does not appear to be a plentiful species in England. We have bought it in the market at Bristol, and have received it from our friend, Mr. Boys of Sandwich, killed on that coast. It is not found here in the summer months, and of course retires northward to breed; frequents the sea-shores only, and seldom more than six or seven are seen in a flock. Said to be found in Siberia and Carolina in large flocks. It probably breeds in Scotland, as in the high grounds of the Mearns.

GREY LINNET.—A name for the Linnet.

GREY OWL.—A name for the Tawny Owl.

GREY PATE.—The young of the Goldfinch; so called by the bird-catchers before the crimson on the head appears.

GREY PHALAROPE.—A name for the Coot-foot.

GREY PLOVER.—A name for the Grey Lapwing.

GREY SANDPIPER.—A variety of the Grey Lapwing.

GREY SKIT.—A name for the Water Rail.

GREY WAGTAIL.—A name for the Winter Wagtail.

GROSBEAK.—A name for the Hawfinch.

GROUND WREN.—A name for the Hay Bird.

GROUS (*Tetrao*, Linnæus.)—A genus of birds.

GRUIDÆ (Vigors.)—Cranes, a genus of birds (*Grallatores*, Illiger.)

GUERNSEY PARTRIDGE (*Perdrix Rufa*, Ray.)

Tetrao rufus, *Linn.* Syst. 1. p. 276. 12.—*Gmel.* Syst. 2. p. 756.—Ind. Orn. 2. p. 647. 12.—Perdrix Græca, *Raii*, Syn. p. 57. B. 5.—*Will.* p. 121. t. 29.—*Briss.* 1. p. 241. 12. t. 23. f. 1.—*Ib.* 8vo. 1. p. 67.—Greek, or Red Partridge, *Lath.* Syn. 4. p. 767. 12.—*Will.* (Angl.) p. 169.—*Albin*, p. 27.—Perdrix rubra, *Briss.* 1. p. 236. 10.—*Ib.* 8vo. 1. p. 66.—*Raii*, Syn. 1. p. 57. A. 5.—*Will.* p. 167. 29.—Perdrix Rouge, *Buff.* Ois. 2. p. 431. t. 15.—Perdrix rubra barbarica, *Briss.* 1. p. 239. 11.—*Ib.* 8vo. 1. p. 67.—Perdrix rouge de barbarie, *Buff.* Ois. 2. p. 445.—Barbary Partridge, *Edw.* t. 70.—*Lath.* Syn. 4. p. 770.—Guernsey Partridge, *Lewin's* Br. Birds, 3. t. 137.—*Pult.* Cat. Dorset. p. 7.—*Flem.* Br. Anim. p. 45.—*Will.* p. 167. t. 29.—*Albin*, 1. t. 29.—*Lath.* Syn. 4. p. 768.—Supp. p. 220.—Rural Sports, 2. p. 408.

This bird is rather larger than the common species. Bill, irides, and legs red; the upper part of the head is red-brown; greyish on the forehead; chin and throat white, encircled with black; over each eye a band of white; fore part and sides of the neck cinereous, spotted with black; back, wings, and rump, grey-brown; breast pale ash-colour; belly rufous; sides marked with lunular streaks of black, white, and orange; the tail composed of sixteen feathers of a rufous-colour, except the six middle ones, which are more or less grey-brown.

The habits of this species differ somewhat from the common partridge. This frequently perches on a tree, and will breed in confinement, which the other is never known to do.

*Mr. Daniel says that they are now plentiful near Oxford, the Marquis of Hertford having imported many thousand eggs, which were hatched under hens, and liberated; and so early as 1777 he says he saw a covey, consisting of fourteen of these birds, several of which he shot; many coveys may be found in the neighbourhood of Ipswich, on preserved manors, where they seem to prefer the waste heathy ground t corn-fields, the favourite haunts of the common species.

It is a curious fact, that the Guernsey Partridge should be so much changed in its nature, by passing the British channel from Picardy to Kent, not above the third of a degree in difference of latitude, and yet, prolific as they are on the south side of the channel, they become less inclined to propagation, even in the same sort of soil in the north,

which has rendered every exertion to naturalize them to any extent ineffectual.

This species is very plentiful in Spain and Portugal, frequenting the vineyards, especially in winter. Bechstein informs us that they have been found in Austria and Bohemia, where, however, they are, as with us, very rare in a wild state. Woody and mountainous countries, he adds, seem to please them more than the plains. Wheat and corn of all sorts, with the leaves of several plants, and insects in turn, furnish them with their food; they never become so familiar as the quail, but sufficiently so to breed in the aviary.*

Why this should be called Guernsey Partridge we cannot imagine, since we are credibly informed it is very rare in that island. The common species breed there, but are scarce; whether this ever bred there is uncertain, though they are known to breed in the island of Jersey. It is also found in various parts of Asia and Africa, and is called by the name of the Red-legged Partridge.

GUILLEMOT (*Uria*, Temminck.)—A genus of birds.

GUILLEMOT (*Uria minor*, Stephens.)

Colymbus grylle, *Linn.* Syst. 1. p. 220. 1.—*Gmel.* Syst. 2. p. 584.—Uria Baltica et Grylloides, *Brunn.* p. 25.—Uria Grylle, Ind. Orn. 2. p. 797. 2.—*Temm.* 2. p. 925.—Uria minor nigra, Columba groenlandica, *Briss.* 6. p. 76. 3.—*Ib.* 8vo. 2. p. 379.—*Raii*, Syn. p. 121, 6.—*Will.* p. 245.—Cephus Grylle, *Flem.* Br. Anim. p. 135.—Le petit Guillemot, *Buff.* 9. p. 354.—Greenland Dove, or Sea Turtle, *Albin*, 2. t. 80.—*Will.* (Angl.) p. 326. t. 78.—Spotted Greenland Dove, *Edw.* Glean. t. 50.—Black Guillemot, Br. Zool. 2. No. 236.—*Ib.* fol. 138. t. H. 4.—Arct. Zool. 2. No. 437.—*Lath.* Syn. 6. p. 332. 3.—*Lewin's* Br. Birds, 6. t. 221.—*Walc.* Syn. 1. t. 95.—*Pult.* Cat. Dorset. p. 17.—Spotted Guillemot, *Penn.* Br. Zool. 2. 83. 2. and 13. H. 4.—*Mont.* Dict.

Provincial.—Tyste. Taiste. Tysty. Scraber. Puffinet.

This species weighs fourteen ounces; length near fourteen inches; the bill is black, strait, slender; inside of the mouth yellow-red; the whole plumage is black, except some of the wing coverts and secondary quills, which are tipped with white; legs red. Some are said to be found wholly black; others spotted black and white; and that the plumage is changed to white in winter.

These birds are not frequent on the southern coasts, but are not uncommon in the north, on the Farn islands, and in Scotland in the Hebrides. We have seen it rarely on the coast of Wales, near Tenbeigh, where a few breed annually; but no where else that we could find from thence to St. David's. It lays one egg, of a dirty white, blotched with pale rust-colour, which is deposited under ground, or in some hole in the rocks. Frequent in Greenland, Hudson's Bay, and other northern parts.

GULDENHEAD.—A name for the Puffin.

GULL-BILLED TERN (*Sterna Anglica*, Montagu.)

* *Temm.* Man. d'Orn. 2. p. 744.—*Mont.* Supp. Orn. Dict.—*Flem.* Br. Anim. p. 143.

The bill of this species is about an inch and a half long, thick, long, and angulated on the under mandible, like the bill of the gull, and wholly black; the upper part of the head, taking in the eyes, is also black, and extends down the back of the head, and part of the neck, with two or three white feathers on the crown; the general plumage above is cinereous, and the tail and its upper coverts like the back, the outer feather on each side only being white; quills hoary, the tips of the first five black, for an inch or more, without the slightest margin of white on that part; the wings and tail are dark grey, the former three inches longer than the latter, the inner webs, which are white, not quite reaching the margin, the edge being dusky for half the length of the feathers. The legs rather exceed two inches in length, from the heel to the knee; their colour rufous-black; the toes rather long, especially the middle toe, and the claws unusually straight. In winter the head is white, with black marks before and behind the eye.

This species, first detected by Montagu, has since been observed in the eastern parts of Europe and in the United States.*

GULL (*Larus Canus*, Linnæus.)

Larus canus, *Linn.* Syst. 1. p. 224. 3.—*Gmel.* Syst. 2. p. 596.—Ind. Orn. 2. p. 815. 9.—*Temm.* Man. d'Orn. 2. p. 771.—Larus cinereus minor, *Raii*, Syn. p. 127. A. 3.—*Will.* p. 262. t. 76.—Larus cyanorhynchus, *Meyer*, 2. p. 453.—Gavia cinerea, *Briss.* 6. p. 175. 8. t. 16. f. 1.—*Ib.* 8vo. 2. p. 408.—Larus hybernus, *Gmel.* Syst 1. 596.—Le Grand Mouette cendrée, *Buff.* Ois. 7. p. 384.—White web-footed Gull, *Albin*, 2. t. 84.—Common Gull, Br. Zool. 2. No. 249. t. 89. f. 2.—*Ib.* fol. 142.—Arct. Zool. 2. No. 458.—*Ib.* Supp. p. 70.—*Will.* (Angl.) p. 345. t. 76.—*Lath.* Syn. 6. p. 378. 8.—*Lewin's* Br. Birds, 6. t. 215.—*Walc.* Syn. 1. t. 110.—*Pult.* Cat. Dorset. p. 18.—*Don.* Br. Birds, 2. t. 46.—*Flem.* Br. Anim. p. 140.—Winter Mew, *Lath.* Syn. 6. p. 384.—*Mont.* Dict. and Supp.

Provincial.—Sea Maw. Sea Mall. Sea Mew.

This species weighs fifteen or sixteen ounces; length about seventeen inches; bill yellow; irides hazel. The head, neck, tail, and under parts of the body, white; the back, scapulars, and wing coverts, ash-colour, the former tipped with white; the primary quills black; the two or three first have a spot of white across the ends, but the tips are black, the rest are tipped with white; the secondaries like the back, tipped with white; legs dull white, or tinged with green.

This is the description of the bird maturely feathered. In the first year it is more or less mottled all over with brown and white, with a dusky bar across the end of the tail. In the second year the head, neck, under parts, and tail, are white, the two first streaked with dusky; the last retains the bar at the end; the back and scapulars are ash-

coloured, but the coverts of the wings still retain brown and white mottled feathers. In this state it has long been considered as a distinct species, and called the Winter Mew, or Gull. We shall here remark, that too much caution cannot be observed with regard to this tribe of birds; none perhaps have puzzled the naturalist more from the variation in plumage at different ages.

All the gulls found in this country are more or less mottled for the first year, and some probably do not arrive to maturity till the third or fourth year, which we can speak of as a fact, from having kept them on purpose to ascertain this point.

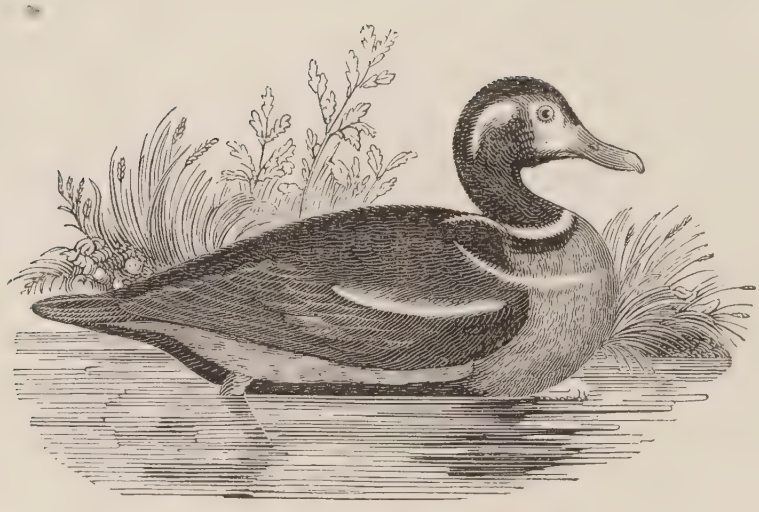
*We have had this species alive for some years, and observed that when it had attained its full mature plumage, in the second year, the head and neck are pure white during the summer, but, like the herring gull, those parts become streaked and spotted with brown, in the autumn, which is continued all the winter, and in the spring become again pure white. In defect of fish or worms, it will, when pressed by hunger, pick up grain.

It is almost inconceivable that so small a bird should be able to stow within its body an eel of a foot in length, but it is a fact we have frequently witnessed. None of the tribe seem to disgorge more readily on being alarmed than this; no effort appears requisite, but a reversion or contraction of the stomach takes place if in the least frightened, and the complete meal is regurgitated, and as speedily swallowed again when the fright is over.*

This is one of the most plentiful species found on our coast. They breed upon the ledges of the rocks close to the sea-shore, sometimes not far above the water. We saw some hundreds sitting on their nests in an island off St. David's, the nests were made of sea-weeds, and were placed nearly together, about fourteen feet from the beach.

The eggs were two or three in number, of a dull olive-brown, blotched with dusky, the size of a small hen's. When disturbed they are exceedingly clamorous, and not much alarmed by being shot at. They are frequently seen in winter, at a considerable distance from the coast, and in severe weather they flock with the rooks. They follow the plough for the sake of the larvæ of the chaffer, (*Scarabæus Melolontha,*) and of worms. The young are brown, mottled with white, the tail having a brown bar near the end; the white commences in the second year, and the spots on the wing and the bar on the tail gradually disappear.

GYRFALCON.—A name for the Jer Falcon.



Harlequin Duck.

HÆMATOPUS (Linnæus.)—* Oyster-catcher; a genus thus characterised. Bill long, strong, straight, compressed; point much compressed, formed like a chisel; nostrils at the sides of the bill slit lengthwise in the groove; legs strong and muscular; three toes directed forwards, the middle one re-united to the outer, as far as the first joint by a membrane, and on the inside, by a small rudiment; toes bordered with the rudiments of a membrane; wings of a middle size, the first quill the longest.*

HAGISTER.—A name for the Magpie.

HAGGARD FALCON.—A name for the Peregrine Falcon.

HAIRY WOODPECKER (*Picus villosus*, Linnæus.)

*Picus villosus, *Linn.* Syst. 1. p. 175. 16.—*Gmel.* Syst. 1. p. 435.—Ind. Orn. 1. p. 232. 19.—Pic chevelie de Virginie, *Buff.* 7. p. 74.—Pic varie de Virginie, pl. Enl. 754.—Hairy Woodpecker, Arct. Zool. 2. No. 164.—*Lath.* Syn. 2. p. 572. 18.—*Ib.* Supp. p. 108.—*Catesby*, 1. p. 19. fig. 2.—Peele's Museum, No. 1988. *Flem.* Br. Anim. p. 92.—*Wilson's* Amer. Orn. 1. p. 150.—*Mont.* Dict.—*Lewin's* Br. Birds, 2. p. 48.—*Walc.* Syn. 1. t. 47.

This species is nearly nine inches in length, and weighs about two ounces; the plumage is black above, with a white stripe of hair-like feathers down the middle of the back; the nape having a red band and two white stripes on each side of the head; one over the eye, the other along the lower jaw, from the bill, which is an inch and a quarter long, of a horn colour, and grooved, wedged at the end; across the hind part of the head is a red band; the wings are spotted with white; under parts of the body wholly white; four middle feathers of the tail are black; the next marked obliquely on each side with white at the tip, the last but one white, with the base black; outer one wholly white;

legs, feet, and claws, light blue, the latter remarkably large and strong; inside of the mouth flesh-colour; tongue pointed, beset with barbs, and capable of being protruded an inch and a half; the nostrils are hid under remarkably thick bushy recumbent hairs or bristles, with certain long hairs thrown forward and upward: this mass of hair on the nostrils appears to be designed as a protection to the head, when the bird is engaged in digging holes in wood. The female wants the red on the head, in other respects resembles the male. It is a native of North America, where it is said, by Wilson, to haunt the orchards and gardens, and to have all the characters of the woodpecker strongly marked. It can only be reckoned a straggler in this country, where several have been killed lately. A pair shot near Halifax, in Yorkshire, and examined by Dr. Latham, only differed from the American bird in having a slight interruption of the red that marks the hind head of the former. Speaking of this bird, Wilson says—"In the month of May he retires with his mate to the woods, and either seeks out a branch already hollow, or cuts an opening for himself. In the former case I have known his nest more than five feet distant from the mouth of the hole, and in the latter he digs first horizontally up in the body of the tree six or eight inches, and then downwards obtusely for twice that distance, carrying all the chips up with his bill, and scraping them out with his feet. They also not unfrequently choose the orchard for breedin, and even an old stake from the fence, which they excavate for this purpose. The female lays white eggs, and hatches in June. This species is numerous in Pennsylvania, and more domestic than the common woodpecker, frequently approaching farm-houses and skirts of the town." It has been supposed by some naturalists, that the Halifax mentioned above has been mistaken for Halifax in America.*

HALCYONIDÆ (Vigors.)—*Kingfisher; a group of perchers (*Insessores*, Illiger.)*

HALFSNIPE.—A name for the Jacksnipe.

HALIÆTUS (Savigny.)—*A genus thus characterised. Bill convex above; nostrils crescent shaped, transverse; ceroma somewhat hispid; shanks half feathered; shins plated with scales; toes free, the outer versatile; claws unequal.—Vigors.*

HARLEQUIN DUCK (*Clangula histrionica*, Fleming.)

Anas histrionicâ, *Gmel.* 1. p. 534. sp. 35.—*Lath.* Ind. 2. p. 849. sp. 45.—*Wilson*, Amer. Orn. 8. p. 139. pl. 92. fig. 4.—*Temm.* 2. p. 878.—Canard Arlequin, *Cuv.* Règ. Anim. 1. p. 533.—Harlequin Duck, *Lath.* Syn. 6. 485.—*Flem.* Br. Anim. p. 120.—*Sowerby*, Br. Misc. Tab. p. 6.

FEMALE.

Anas minuta, *Linn.* Syst. 1. p. 204. 36.—*Gmel.* Syst. 1. p. 534.—Anas torquata, *Gmel*, Syst. 1. p. 514.—Querquedula freti Hudsonis, *Briss.* 6. p. 469. 41.—*Ib.*

8vo. 2. p. 483.—Le Canard brun, *Buff.* 9. p. 252.—La Sarcelle brune et blanche, *Buff.* 9. p. 287.—Little Brown and White Duck, *Edw.* t. 157.—Harlequin Duck, (female,) *Lath.* Syn. 6. p. 485. 38.

We are enabled with certainty to add this species of Duck to the list of British birds from the authority of Mr. Sowerby, in whose collection of the more rare English birds we had an opportunity of examining both sexes, which were killed on the domain of Lord Seaforth, in Scotland, a few years since, and presented to him by that nobleman. Mr. Simmons also shot a young female in the Orkney islands.

Linnæus had considered the female of this species as distinct from his *Anas histrionica*, and has given it under the name of *Anas minuta*. Gmelin has followed him, but not without expressing his doubts. Various other authors have considered the sexes as distinct species; but later observations have clearly proved, beyond doubt, that the *Anas minuta* is no other than the female Harlequin Duck.

This species is about the size of the widgeon, but shorter; length seventeen inches; weight about twenty ounces; bill small, an inch and a half long, and black; irides hazel; from the base of the bill to the eye a white patch; crown of the head black, bounded by a ferruginous streak; neck black, on each side of which is a white line pointing downwards; above that is a white spot; round the breast is a white band, marked with dots of black behind; this is bounded by a black one; between this and the wings is a transverse line of white; the breast bluish ash-colour; back dusky brown, with a purplish hue; rump bluish black; belly and thighs black; sides dull orange yellow; wings and tail deep ash-colour; legs black.

The Harlequin Duck, like most of the genus, appears to be subject to considerable variety, from the description of various authors. The breast in some is marked with semilunar stripes of white; the tail is brown, and some of the quill-feathers tipped with white; and the spot between the bill and eye yellow.

The female is less, measuring about fourteen inches in length; the forehead, and between the bill and eye, is white, with a spot of the same behind the ear; the rest of the plumage above is generally of a dusky brown; upper part of the breast and rump inclining to rufous; the lower part of the breast and belly barred with pale rufous and white; the lower belly and thighs with rufous and brown; legs dusky.

This bird is an inhabitant of the more northern parts of the world. It is found in Russia, Iceland, and Greenland, and as far north as Kamschatka: in America, from Carolina to Newfoundland, and at Hudson's Bay. It is said to frequent bays and rivers during the summer

months, and to be fond of shady places, making its nest on shore amongst shrubs, particularly about the most rapid torrents. It dives admirably in search of small shell-fish, on which it feeds, as well as on the spawn of fish, and the *larvæ* of the gnat. Has been found frequently in the small rivulets of Hudson's Bay, ninety miles inland: most probably frequenting such places in preference to large rivers, during the breeding season. It flies swiftly, and to a great height, so that it is not easily taken. The note is a sort of a whistle. "This species," says Wilson, "is very rare on the coasts of the middle and southern States of America, though not unfrequently found off those of New England, where it is known by the dignified title of Lord, probably from the elegant crescents and circles of white which ornament its neck and breast." It lays ten or twelve eggs, like those of the pigeon. In autumn, when the young are capable of flying, they migrate southward, to pass the winter in the open sea. It is a rare visitant on the northern coast of Scotland.

HATCHING.—Treated of under Incubation.

HAW-FINCH (*Fringilla coccothraustes*, TEMMINCK.)

*Fringilla coccothraustes, *Temm.* Man. d'Orn. 1. p. 344.—Loxia coccothraustes, *Linn.* 1. p. 299.—Faun. Suec. No. 222.—*Gmel.* Syst. 1. p. 844. sp. 2.—*Raii*, Syn. p. 85. A. 1.—*Will.* p. 150.—*Briss.* 3. p. 219. 1.—Le Gros-bec, *Buff.* Ois. 3. p. 44. t. 27. f. 1.—*Ib.* pl. Enl. 99. and 100.—*Temm.* Man. d'Orn. 1. p. 344. Kirsch Kernbeisser, *Bechst.* Naturg. Deut. 3. p. 35.—*Meyer*, Tasschenb. 1. p. 143.—*Frisch*, t. 4. f. 2. A. B.—Appel-vink, *Sepp*, Vög. 2. t. p. 137.—Grosbeak or Hawfinch, Br. Zool. No. 113.—Arc.. Zool. 2. p. 354. C. *Will.* (Angl.) p. 244, 44.—*Albin*, 1. t. 56.—*Lewin's* Br. Birds, 2. t. 67.—*Lath.* Syn. 3. p. 109. 4.—*Ib.* Supp. p. 148.—*Mont.* Orn. Dict. 1.—*Pult.* Cat. Dorset. p. 11.—*Walc.* Syn. 2. t. 206.—*Don.* Br. Birds, 2. t. 43.—*Bewick's* Br. Birds, 1. p. t. 133. *Shaw's* Zool. 9. p. 236. pl. 42.—*Flem.* Br. Anim.—*Selby*, pl. 55. fig. 1. p. 262.*

The length of this species is six inches; weight about two ounces. The bill is three quarters of an inch long, half an inch thick at the base, and remarkably strong, of a pinkish hue when alive, but soon fades to a light-brown horn colour; irides grey; the crown of the head and cheeks are bay; between the bill and eye, and round the nostrils, black; the chin and throat the same; hind part of the neck ash-coloured; the back and scapulars chestnut-brown; rump and upper tail coverts light brown, inclining to ash-colour; the breast light brown, tinged with blossom-colour; whitish towards the vent; the greater quills are dusky black; the points, from the fourth, including the secondary quills, as far as the fifteenth or sixteenth, are glossy bluish-black, truncated at their ends, and four or five of them bent in form of a battle-axe; on the middle of their inner webs a white spot; three or four of the lesser quills close to the body are the colour of the back; the smallest coverts dusky; beneath a few are white, making a small

bar of that colour on the wing; the greatest coverts of the secondary quills are cinereous grey on their outer webs; the tail is black; the inner webs half white from the points, except the two middle feathers; the coverts of the tail are very long, and reach nearly to the end; the legs are pale brown.

We are informed that the female wants the black spot on the chin. It is probable, however, such may be a variety, as we have examined a great many of both sexes, all of which had more or less black on that part; but the females in general have less of the bay-colour on the head. However, this is not to be depended on, as they vary considerably in that part from age.

Dr. Latham says this species is subject to great variety of plumage; that the top of the head in some is whitish, surrounded with rufous, in others wholly black; that the band in the wings in some is almost white, in others grey, and again wholly wanting; and that specimens have been seen wholly black.

These birds usually visit England in the autumn, and continue with us till the month of April. They appear in small flocks, seldom more than four or five, but are in no parts common. We once saw as many as a dozen together, feeding on the hawthorn berries in Badmington park in Gloucestershire. The facility with which they break the hard stones of that fruit to get at the kernel is astonishing. It is done apparently with as much ease as other small birds break hempseed.

No instance has been recorded of its breeding with us; but Dr. Latham assures us he had one sent to him in the summer months. What the song of this bird may be in the season of love, authors are silent about; but we have heard it sing pleasantly, in low plaintive notes, even in winter, when the weather has been unusually warm. The nest is very beautifully constructed of lichens, laverwort, and vegetable fibres, lined with feathers and other soft materials, placed in the upper branches of a tree. It is more plentiful in France; appears about Burgundy in April, where it breeds.

The eggs are from three to five in number, of a bluish green, spotted with olive-brown, with a few irregular black markings. It is common in Italy, Germany, Sweden, and part of Russia; and Sonnini informs us that he saw them in Egypt during the winter, in company with the thrush and blackbird.

HAWKS (*Accipitrina*, Vigors.)—*A group of birds of prey, belonging to the falcon family, (*Falconidæ*, Leach,) and characterised by the wings being short, and when closed, scarcely reaching to the end of the tail; the first quill feather very short, the third nearly equal to

the fourth, which is the longest in the wing; shanks plaited, long, and slender; middle toe greatly exceeding the two lateral ones in length; claws much hooked, and very sharp; flight rapid and direct. They pounce upon their prey on the wing, and are so bold as to attack much larger birds than themselves.*

HAWK OWL (*Otus brachyotus*, Fleming.)

* Strix Brachyotus, *Lath.* Ind. Orn. 1. p. 55. 11.—*Gmel.* Syst. 1. p. 289. sp. 17.—*Meyer*, Tasschenb. Deut. 1. p. 73.—Otus Brachyotus, *Flem.* p. 58.—Strix Ulula, *Lath.* Ind. Orn. 1 p. 60. sp. 27. var. B.—*Gmel.* Syst. 1. p. 294.—Strix Brachyura, *Nils.* Faun. Suec. 1. p. 62. sp. 27.—Hibou Brachyote, *Temm.* Man. d'Orn. 1. p. 99.—Chouette ou Grand Chevêche, *Buff.* Ois. 1. p. 372. t. 27.—*Ib.* pl. Enl. 438.—Chouette Caspienne, *Sonn.* Nouv. ed. *Buff.* Ois. 4. p. 169.—Kurzörige Ohreule, *Bechst.* Naturg. Deut. 2. p. 909.—*Frisch*, Vög. t. 98.—Caspian Owl, *Lath.* Syn. 1. p. 140. and 147.—Short-eared Owl, *Penn.* Zool. 1. p. 204. and 206.—Arct. Zool. 2. No. 116.—*Lewin's* Br. Birds, 1. t. 25.—*Lath.* Syn. 1. p. 124. 9.—*Ib.* Supp. p. 43.—*Mont.* Orn. Dict. 2.—*Walc.* Syn. 1. t. 25. *Pult.* Cat. Dorset. p. 4.—*Bewick's* Br. Birds, 1. p. 48. and 50.—*Low's* Faun. Orcad. p. 42.—*Selby*, pl. 21. 8vo. pl. 1. p. 54.

Provincial.—Woodcock Owl. Mouse Hawk.*

This species weighs eleven ounces; length near fifteen inches. Bill dusky; irides bright yellow. The feathers immediately surrounding the eyes are black; those that cover and surround the bill white; the wreath round the face beautifully speckled with light ferruginous, black, and white, except at each ear, where it is wholly black; on the top of the head, above each eye, is a tuft of feathers, which it can erect at pleasure, the foremost of which are black on the outer webs, and white on the inner; the rest of the head, neck, back, and scapulars, dusky, bordered more or less with light ferruginous; breast and belly yellowish white, streaked with dusky down the shafts; the greater quills are light ferruginous on the outer webs; the three first have a single bar of black each, and deeply tipped the same; the others have two bars each, their tips brown, inclining to greyish; the inner webs have one, or part of an irregular bar; the coverts of the primores black; on the coverts of the secondaries are several large spots of white; the second feather in the wing is the longest; the feathers of the tail are light ferruginous, crossed with four dusky bars on the six middle ones, and marked with dusky spots on the yellow bars of the two middle feathers; the bars on the outer feathers are not so numerous or so perfect, and the yellow is shaded off to almost white on the exterior feathers, which have only irregular circles of dusky brown on the inner webs; the legs are covered down to the claws with light yellow feathers.

The above description is taken from a male killed near Bristol. The female is rather less bright in colour, and somewhat superior in size.

This bird is distinguished from all the other species by the smallness

of its head, which has occasioned it to be called in some places by the name of Hawk Owl.

To Mr. Pennant the British Fauna is indebted for the first discovery of this bird; but that excellent naturalist has described it to have only one feather on each side the head which is erectable, which mistake has been followed by all other ornithologists. It must, however, be remarked, that these tufts, or ears, are never erected but when the bird is in a quiescent state. A few years since one of this species was taken alive in a lark-net, making a pounce at the decoy bird; and we bought it of the bird-catcher, in order to observe its manners. In a few months it became tolerably tame, and when hungry would take food from the hand. It was mostly fed with small birds and mice, but would eat any raw meat, which it first took in its bill, and immediately placed in its talons, and devoured it by piecemeal. When it was asleep or undisturbed, the aurated feathers were very distinguishable, standing above the rest about half an inch; but on being disturbed they were instantly depressed, and the head apparently enlarged, by the feathers round the face being somewhat raised. Upon minute examination these tufts were found to consist of a series of feathers, very little, if any thing, longer than the rest. While we were in possession of this we received a dead specimen, in which one feather was visibly longer than the rest in the tuft: this might have led to the mistake before mentioned.

The Hawk Owl comes to us in October, about the time the woodcock makes its appearance, and departs at the same time with that bird in March; hence the name of woodcock owl.

With us this bird is observed never to perch on a tree, but generally hides itself in long grass, fern, or the like, and seems partial to open, barren situations. When disturbed it flies a little way, and lights again on the ground. In dusky weather it will prey by day, and sometimes fly at small birds as well as mice. It is a bold bird, but seems contented in confinement. That above mentioned never drank for the six months it was in our possession. How long it lived after it was given away, we never heard. It may, however, be presumed, contrary to the general opinion, that Owls, as well as all predacious birds, bear confinement, whether taken young or old, which we have experienced as well in the tawny and white owls as in this. It is supposed to breed in the Orkneys, and probably in Norway; visits Hudson's Bay in May; makes a nest of dry grass on the ground, and lays three or four white eggs. We have great reason to believe this bird

is the Chouette or Grande Chevêche, of Buffon, and perhaps has been noticed by other authors; but from the circumstance of the ears not being mentioned, which is not discoverable in a dead specimen, confusion has arisen.

Mr. Anstice says that a few years since, mice were in such vast abundance in the neighbourhood of Bridgewater, as to destroy a large portion of vegetation; and in the autumn a great many Hawk Owls resorted to the place in order to prey on them. They were found in the fields, amongst the high grass.

We never observed it so far west as Devonshire, till the year 1809, when we procured two specimens about the middle of November. In the stomach of one of these were the fragments of a skylark and a yellow-hammer.

HAY-BIRD (*Sylvia trochilus*, LATHAM.)

* Sylvia trochilus, *Lath.* Ind. Orn. 2. p. 550. sp. 15. 5.—Motacilla trochilus, *Linn.* Syst. 1. p. 338. 49.—*Gmel.* Syst. 1. p. 995. sp. 49.—Asilus, *Briss.* Orn. 3. p. 479. 45.—*Raii*, Syn. p. 80. A. 10.—*Will.* p. 164.—Motacilla acredula, *Linn.* Syst. 1. p. 338. 49. B.—Sylvia fitis, *Bechst.* Naturg. Deut. 3. p. 643.—Le Pouillot ou le Chantre, *Buff.* Ois. 5. p. 344.—*Ib.* pl. Enl. 651. f. 1.—Le Figuier brun et jaune, *Buff.* Ois. 5. p. 295.—Bec-fin Pouillot, *Temm.* Man. d'Orn. 1. p. 224.—Fitis Sanger, *Meyer*, Tasschenb. Deut. 1. p. 248.—*Frisch*, t. 24. f. 1.—Yellow Wren, Br. Zool. 1. No. 151.—Arct. Zool. 2. No. 319.—*White's* Hist. Selb. 28. 55.—*Lath.* Syn. 4. p. 512. 147.—*Ib.* Supp. 2. p. 238.—*Mont.* Orn. Dict.—*Ib.* Supp.—*Lewin's* Br. Birds, 3. t. 113.—*Pult.* Cat. Dorset. p. 9.—*Don.* Br. Birds, 1. t. 14.—Scotch Wren, Br. Zool. 2. No. 152.—Arct. Zool. 2. p. 420.—*Lath.* Syn. 4. p. 513.—Willow Wren, *Bewick's* Br. Birds, 1. p. 222.—*Selby*, pl. 47. fig. 3. p. 189.*

Provincial.—Ground Wren. Ground Huckmuck.

This species weighs about two drams and three quarters; length five inches and a quarter. The bill is dusky above, yellowish beneath; irides hazel. The whole upper parts of the plumage are of a greenish yellow-brown; the under parts are white, tinged with yellow; on the breast are a few yellow streaks; quills dusky brown, edged with yellow; coverts yellow, thighs the same; tail like the quills, slightly edged the same; over the eye a faint yellowish stroke; legs light brown.

This is a plentiful species in some parts. Frequents wooded and enclosed situations, especially where willows abound. Is frequently found with the wood wren, but does not extend so far to the west in England, as it is rarely met with in Cornwall. It comes to us early in April, and soon begins its usual song, which is short, with little variety. About the latter end of the same month, or beginning of May, it makes a nest of an oval shape, with a small opening near the top, composed of moss and dried grass, and lined with feathers. This is placed in the hollow of a ditch, or in a low bush close to the ground.

*I have now before me half a dozen specimens of these nests, two of which are rather peculiar. The usual materials of the nest (which, like that of the chiff-chaff, is built in a sloping bank or at the root of a tree or bush) are a frame-work of dried grass stems, intermixed with a few bits of green moss, (*Hypnum prælongum*, &c.,) and sometimes a few leaves or thin flexible slips of birch bark, with a warm lining of soft feathers within, laid more loosely than is usual in such nests. The entrance, which is in front, immediately under the arched dome, is considerably wider than that of the common wren, though the bird itself is no thicker, but a trifle longer in the body. This fact accords ill with the common doctrine of these domed nests being contrived to prevent the entrance of snakes, which, indeed, frequent the same localities; and we saw a snake (*coluber natrix*) close by one of these very nests, but having just swallowed a frog twice as thick as its own body, it probably had no relish for the tiny eggs of the wren. Of these two anomalous nests above alluded to, one has a frame-work chiefly composed of small fibrous roots, instead of the dried grass, which has obtained for this wren the provincial name of Hay-Bird, in the same way as the white-throats are called hay-tits. The same wren is also called the bee-bird, not from its preying upon bees, which are too bulky for its slender bill, but because it builds a similar nest of moss or dried grass to the carder bee (*Bombus Muscorum*, Latreille.)* This root-nest is lined with soft feathers as usual. Another of these nests is a much more compact structure than the Hay-bird commonly makes, being formed of long thin slips of bass.[2]

The eggs are six or seven number; white, spotted with light rust-colour towards the larger end; others are sprinkled all over; their weight sixteen or eighteen grains. The plumage of this species is so like that of the chiff-chaff, that were it not for its superior size, it would be difficult to distinguish them. The size and the colour of the legs, are, however, an unerring mark of distinction. It has also been frequently confounded with the wood-wren, but each have their essential characters, as will be found by referring to the description of those species.

The eggs of this bird are readily distinguished from that of the chiff-chaff, by having spots of a rust-colour, while those of the latter have invariably dark purple spots.

*"In the wild state," says Sweet, "it feeds entirely on small insects,

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[1] See Insect Architecture, pp. 65, 66.

[2] Architecture of Birds. Chap. on Dome Builders, p. 315.

chiefly on the different species of aphides; but it will not refuse small flies, or caterpillars, or a rose branch covered with aphides; and it will soon become very tame in confinement." One that I caught in September, was in three days afterwards let out of its aviary into the room to catch the flies, which were numerous at that season; after amusing itself for some time in catching flies, it began singing; it did the same several other times when it was let out, and in a few days it began to sing in its aviary. It soon became so familiar, that it would take flies out of the hand; and when it was out in the room, if a fly was held towards it, it would fly up, and take it out of the hand. It was also taught to drink milk out of a tea-spoon, by putting some flies in it; as soon as it tasted the milk, it was very fond of it, as most of the birds of this genus are; if the spoon was held towards it, and it was called 'sylvia,' it would fly up, and perch on the finger, or on the handle of the spoon, and drink the milk; but it never got so tame as the fauvette becomes, neither was it so expert in catching flies; perhaps the reason was, it became so very fat from eating so much bruised hemp-seed and bread, and milk and bread, that it cared but little for any other thing.

These birds are very plentiful some seasons, flying about from tree to tree, and singing their sweetly soft note, which is not unlike the song of the redbreast, but not so loud. Wherever any plants are infested with any kind of aphides, there the willow wren is always certain to be, often quarrelling and flying after one another; and they will even attack other birds that are much larger than themselves. The willow wren seems to be more tender than the fauvette, to which it is nearly related; when in confinement, it is fond of creeping up to the other birds for the sake of their warmth, particularly at night; and it will not rest till it is very near to one, against which it squeezes itself as close as possible: this is also the same with the fauvette, (*Sylvia hortensis.*)"*

HEATHER BLUITER.—A name for the Snipe.

HEATHFOWL.—A name for the Moorfowl.

HEATH THROSTLE.—A name for the Ouzle.

HEBRIDAL SANDPIPER.—A name for the Turnstone.

HEDGE ACCENTOR.—A name for the Hedge Chanter.

HEDGE CHANTER, (*Accentor modularis*, CUVIER.)

*Accentor modularis, *Cuv.* Reg. Anim. 1. p. 368.—Motacilla modularis, *Linn.* Syst. 1. p. 329. 3.—*Gmel.* Syst. 1. p. 952. sp. 3.—Sylvia modularis, *Lath.* Ind. Orn. 2. p. 511. sp. 13.—Curruca sepiaria, *Briss.* 3. p. 394. 12.—Le Mouchet, Traine Buisson, ou Fauvette d'Hiver, *Buff.* Ois. 5. 151.—*Ib.* pl. Enl. 615. f. 1.—Fauvette de Bois, ou Rousette, *Buff.* Ois. 5. p. 139.—Accenteur Mouchet, *Temm.* Man. d'Orn. 1. p. 249.—Schiefer Brustiger Sanger, *Meyer*, Tasschenb. Deut. 1. p. 245.—*Frisch*, t. 21. f. 2. B.—De Winter Zanger, *Sepp*, Nederl. Vög. 4. t. p. 404.—Hedge Sparrow, Br. Zool. 1. No. 150.—Arct. Zool. 2. p. 418. H.—*Will*

(Angl.) p. 215.—*Albin*, 3. t. 59.—*Lath.* Syn. 4. p. 419. 9.—*Mont.* Orn. Dict.—*Lewin's* Br. Birds, 3. t. 102.—*Pult.* Cat. Dorset. p. 9.—*Walc.* Syn. 2. t. 232.—The Winter Fauvette, *Bewick's* Br. Birds, 1. p. 213.—*Selby*, p. 43.* fig. 4. p. 205.

Provincial.—Dunnock. Dick-Dunnock. Titling. Foolish Sparrow.*

This well known species, commonly called Hedge Sparrow, needs little description. The length is five inches and three quarters; weight near six drams. Bill dusky; irides light hazel; head and neck brown, mixed with ash-colour; back and wing coverts darker brown, edged with rufous brown; throat and breast dull ash-colour; belly dirty white; sides and vent tawny brown. The female has less ash-colour about the head and breast.

The Hedge Sparrow is found in all parts of England; has a pleasing song, which it begins with the new year, if the weather is mild; breeds early, making a nest in March, composed of green moss and wool, and lined with hair, which is placed in some low evergreen shrub, thick brush, or cut hedge; frequently builds in faggot piles. The eggs are four or five in number, blue; their weight about twenty-eight grains.

This bird is one of the few of the warbler tribe that remains with us the whole year. The food is insects and worms; but, like the redbreast, it will, in defect of these, pick up crumbs of bread; and seems to prefer situations near the habitation of man.

The cuckoo frequently makes choice of this bird's nest for the purpose of depositing its egg. Is said to be migratory in France, leaving that country in spring, a very few excepted.

* The nest is usually built rather loose, of green moss, (*Hypna*, &c.,) upon a foundation of a few dry twigs or roots: the hair-work within is sometimes of considerable thickness, though most usually so thin as not to cover the moss; but in both cases the hairs are collected and interwoven into the structure singly, and always bent carefully, so as to lie smooth in the circular cut of the nest. It may be remarked, also, that none of the ends are projecting, but uniformly pushed in amongst the moss of the exterior. Whether the bird uses any salivary gluten as a cement to retain the hairs in their proper places, I have not succeeded in distinctly ascertaining; though I think it highly probable if this is not done, that the hairs are moistened to make them wind, since otherwise it would not be easy to account for the neatness of the work, and for the remarkable circumstance, that when the exterior frame-work of moss and twigs is removed, there remains a circular piece of hair-cloth, (if I may use the term,) in some nests, thin indeed, but in others thick and closely woven.*[1]

[1] Architecture of Birds, p. 242.

HEDGE CHICKEN.—A name for the Wheatear.

HEDGE SPARROW.—A name for the Hedge Chanter.

HEDGE WARBLER.—A name for the Hedge Chanter.

HEGRILSKIP.—A name for the Heron.

HELLIJAY.—A name for the Razor-bill.

HEN HARRIER (*Circus Pygargus*, Fleming.)

* Falco cyaneus, *Mont.* Trans. Linn. Soc. 9. p. 182.—*Meyer*, Tasschenb. Deut. 1. p. 182.—Circus Pygargus, *Flem.* Br. Anim. p. 53.—*Vigor's* Zool. Journ. 1. p. 339.—Falco cyaneus, *Gmel.* Syst. 1. p. 276.—*Linn.* Syst. 1. p. 126. 10.—*Lath.* Ind. Orn. 1. 39. 94.—*Muller*, No. 74.—Falco Torquatus (mas.) *Briss.* Orn. 1. p. 345.—*Ib.* 8vo. p. 100.—Falco Bohemicus, *Gmel.* Syst. 1. p. 299. sp. 107.—Falco albicans, *Ib.* p. 276. sp. 102.—Falco griseus, *Gmel.* p. 275. sp. 100.—*Lath.* Ind. Orn. 1. p. 37. 86.—Falco montanus, *Gmel.* 1. p. 278. sp. 106. var. B.—Lanarius cinereus, *Briss.* 1. p. 365. 17.—*Ib.* 8vo. p. 106.—L'Oiseau St. Martin, *Buff.* Ois. 1. p. 212.—*Ib.* pl. Enl. 459.—Busard St. Martin, *Temm.* Man. d'Orn. 1. p. 72.—Busard a croupion blanc, *Vail.* Ois. d'Afri. Sept. 1. pl. 8.—Kore oder Halbweihe, *Bechst.* Tasschenb. Deut. p. 25. sp. 20.—Hen Harrier, Br. Zool. 1. No. 58. t. 28.—*Will.* (Angl.) p. 72.—*Albin*, 2. t. 5.—*Lath.* Syn. 1. p. 88.—*Ib.* Supp. p. 22.—*Lewin's* Br. Birds, 1. t. 18.—*Hayes'* Br. Birds.—*Mont.* Orn. Dict. 1.—*Ib.* Supp.—*Walc.* Syn. t. 17.—*Bewick's* Br. Birds, 1. p. 33.—*Pult.* Cat. Dorset. p. 3.—*Don.* Br. Birds, 3. t. 59.—*Low's* Faun. Orcad. p. 37.—*Shaw's* Zool. 7. p. 163.—New York Falcon, *Penn.* Arct. Zool. 2. p. 209.

FEMALE AND YOUNG.

Falco Pygargus, *Linn.* 1. p. 126. 11.—*Gmel.* Syst. 1. p. 277. sp. 11.—*Lath.* Ind. Orn. 1. p. 39. 94.—*Raii*, Syn. p. 17. 5. (fem.)—*Muller*, No. 74.—*Will.* p. 40.—Falco Hudsonii et Buffonii, *Gmel.* 2. p. 277. sp. 19. and 103.—Falco rubiginosus, *Lath.* Ind. Orn. 1. p. 27. sp. 56.—Falco torquatus, (fem.) *Briss.* 1. p. 345. 7.—*Ib.* 8vo, p. 100.—La Soubuse, *Buff.* Ois. 1. p. 215. t. 9.—*Ib.* pl. Enl. 443. young female, and 480. young male.—Le Busard Grenouillard, *Vail.* Ois. d'Afriq. 1. pl. 23.—Ring-tail, Br. Zool. 1. No. 59.—*Ib.* fol. p. 68. t. A. 7.—*Lath.* Syn. 1. p. 89. 95.—*Ib.* Supp. p. 22.—*Mont.* Orn. Dict.—*Ib.* Supp.—*Lewin's* Br. Birds, 1. t. 18.—*Will.* (Ang.) p. 72.—*Walc.* Syn. 1. t. 18.—*Bewick's* Br. Birds, 1. p. 35.—*Shaw's* Zool. 7. p. 163.—Ring-tail Hawk, *Edw.* t. 107.—Arct. Zool. 2. No. 106.—White-rumped bay Falcon, *Lath.* Syn. 1. p. 54.—Hudson's Bay Ring-tail, *Lath.* Syn. 1. p. 91. 76.—Cayenne Ring-tail, *Lath.* Syn. 1. p. 91.—*Selby*, pl. 10. p. 26.*

It will be manifest by the above synonimes, that we consider the Hen Harrier and the Ringtail to be of the same species. In this we have followed the example of Dr. Latham, who, in his last ornithological works, has brought them together. We will not, however, take upon us absolutely to determine this point, but shall give such remarks as have recently inclined us to that opinion.

The Hen Harrier, in its most perfect state, weighs about thirteen ounces; length eighteen inches and a half. The bill is black; cere and irides yellow; head, neck, breast, and whole upper parts are of a fine light grey; round the head is a wreath of short stiff feathers, white at the base, slightly tipped with grey; the first six quill-feathers black, white at the base, and slightly tipped with grey; the rest of the quills grey on their outer webs and tips; white on the inner webs; tail-feathers white, except the two middle, on which are sometimes a few

markings; the exterior webs of all are grey, and not the least appearance of any bars; vent, upper and under tail coverts, pure white; legs long, slender, yellow.

In the bird now before us the wings, when closed, do not reach to the end of the tail by two inches; the first feather very short, the third and fourth the longest, and nearly the same length. Another weighed twelve ounces; length eighteen inches. This is very like the first described, but rather inclined to brown on the scapulars; and the tail feathers, all except the middle ones, barred on the inner webs more or less; the second and third feathers, from the outside, a little barred on the outer web near the shafts. In another specimen the breast was streaked with dusky, and several of the smaller coverts of the wings were ferruginous like the female; so that this part seems to be the last that arrives to perfection.

The Ringtail, or female, weighs about eighteen ounces; length twenty inches; bill, cere, irides, and legs, the same as the Hen Harrier. Head and whole upper parts of a deep dusky brown; the feathers on the head, neck, and wing coverts, are margined more or less with rufous; round the head a wreath of short feathers, rather lighter in colour; the under parts are pale rufous-brown, with large dusky streaks; greater quills dusky, with a dash of cinereous on the outer webs; upper tail coverts white; tail marked with three or four brown and dusky bars, the lighter bars shaded to rufous on the inner webs, which underneath appear whitish; the outer feather in some is of a light colour and plain; the tips of all whitish.

Various are the opinions concerning these birds. Some authors have ever considered them as male and female; others have shifted their opinion frequently. That males of the Ringtail are found there is no doubt, two instances of which have come under our inspection lately; not only evident by their inferior size, but proved by dissection. In one of these specimens there are a few grey feathers on one side of the neck, and on one thigh, which indicates a change to the plumage of the Hen Harrier. But what is extraordinary, the Hen Harrier seems full as plentiful as the Ringtail; whereas if the young males are a considerable time arriving at maturity, we ought to see many more in the brown state. During the whole of one summer, we happened to be situated where we saw several Hen Harriers every day, frequently three or four on wing together; and yet, from the month of March to September, we never saw but one Ringtail. And Dr. Latham remarks, that no author has mentioned the Hen Harrier as a bird of the American continent, though the Ringtail and its varieties are common

throughout. On the other side of the question, the Doctor says, that both males and females have been shot from their nests in the north; and speaks of it from the authority of Dr. Heysham.

* The following observations appear to settle the question beyond all dispute.

"I undertook," says Montagu, in the Linnæan Transactions, "the care of a brood of three young Hen Harriers found in a nest in a furze bush, and only covered with white down. At this time the two largest had thrown out many feathers, sufficient to discover the plumage of the Ringtail approaching; the other, by its appearance, must have been hatched much later. In about a month it was evident from the size, that there was but one male, so that all my hopes rested on this single life. As they became full feathered, there was at first no distinction in plumage, but the eyes of the supposed male were always lighter than those of the others, whose irides were so dark as not to be distinguished at a small distance from the pupil. In the dress of the Ringtail, the whole continued through the winter, when the one which had been weakly from the first, died: this circumstance induced me to force a premature change in some of the quill and tail feathers of the others, fearing some accident might frustrate my earnest desire of bringing the matter to a decisive proof; and, about the middle of June, I was highly gratified by discovering an appearance of the new feathers, in the place of those which had been plucked out, that clearly evinced the smaller bird to be a Hen Harrier, and the larger a Ringtail.

"Thus I had compelled nature to disclose her secrets before the appointed time; for in every other respect their plumage was yet similar, excepting about the sides of the face, which were paler in colour in the former; in which also the irides were of a dull yellow, somewhat mottled, whereas in the latter they still continued dark.

"The shyness of these hawks had occasioned their breaking most of their larger feathers, although in a place ten feet in length by five in width; and as their regular moulting season was advancing, they were turned into a garden surrounded by a wall, where, after some time, the female died of the cramp in her legs.

"The male had, about the 20th of July, thrown out many of the new feathers naturally, especially the greater coverts of the wings, and a few grey feathers in different parts of the body. On the 20th of August, the greater part of the quill and tail-feathers were grown to their full length, and a gradual increase of grey feathers appeared on most other parts: the eyes also became more orange; but it was not till the middle of October that it had attained that state which made it

desirable to be retained as an existing fact of the change: it was then killed, and is now in my museum.

" In this state the plumage of the Ringtail, or female, still remains about the neck, the smaller coverts of the wings, the thighs, and part of the belly, intermixed with the male plumage: the top of the head and wreath have also a mixture of the feathers of both sexes: the quills, scapulars, and tail, are completely masculine; in the last of these are a few small broken bars of cinereous-brown, on a white ground, in the three outer feathers, the exterior margins cinereous-grey; the six middle feathers are almost wholly grey, and the markings are very obscure beneath.

" From the account here given of the Hen Harrier, it is quite clear that the change of plumage is effected in the autumn of the year after it leaves the nest, and not in the same year; and as it is between three and four months in the act of moulting, it is certainly very extraordinary that so few instances have occurred of its being killed in that state which might have been decisive. That such has been taken, is evident by the description of *Falco Hudsonius* of authors, which is doubtless this bird in change of plumage.

" I have now only to remark that the nest of this bird was composed of sticks rudely put together, was nearly flat, and placed on some fallen branches of furze, that supported it just above the ground. The egg is a little inferior in size to that of the moor-buzzard, and similar in shape and colour."*

HERN and HERONSHAW.—Names for the Heron.

HERON (*Ardea Cinerea*, LATHAM.)

* Ardea cinerea, *Lath.* Ind. Orn. 2. p. 691. 54.—Ardea major, *Gmel.* Syst. 2. 627.—*Raii*, Syn. 98. A. 1.—Ardea cristata, *Briss.* 5. p. 396. 2.—Le Héron Huppé, *Buff.* Ois. 7. p. 342.—Crested Heron, *Albin*, 1. p. 67.—*Ib.* 3. p. 78.—Common Heron, *Penn.* Br. Zool. p. 116. A.—*Flem.* Br. Anim. p. 95.—*Will.* Orn. p. 203.—*Sibb.* Scot. p. 18.—*Linn.* Syst. 1. p. 236.—*Temm.* Man. d'Orn. 2. p. 567.

YOUNG.

Ardea rhenana, *Sander*, Naturg. 13. p. 195.—Le Heron, *Buff.* Ois. 7. p. 342. 19.*

Provincial.—Hern. Heronshaw. Crane. Long-necked Heron. Heronswegh. Hegrie, or Skiphegrie.

The weight of this species is about three pounds and a half; length, to the end of the tail, about three feet four inches; bill near six inches long, dusky; at the base of the under mandible yellow; irides bright yellow; round the eye the skin is bare and greenish; the forehead and crown of the head white; on the hind part of the head the feathers are of a glossy black, very long, and form a loose pendant crest; the neck is whitish, marked on the fore part with a double row of black spots;

scapulars grey and white, which, with those on the lower part of the neck, are long and loose; wing coverts bluish grey; the bastard wings and greater quill-feathers black; the sides of the body, from the breast to below the thighs, black; middle of the breast and belly white; thighs white, tinged with rust-colour; the tail is short, of a bluish ash-colour; legs very long, of a dull greenish colour; the middle claw serrated.

The female wants the black and white feathers on the head, instead of which that part is bluish grey, and not much elongated into a crest, as in the male; the feathers on the breast and scapulars are not so long and loose. The young male birds are like the female for some time. Linnæus has made the two sexes distinct species; others were long of the same opinion, but later observations have corrected the mistake.

This bird is found in most parts of the known world; is common in England. It is a great destroyer of fish, both sea and fresh-water; and is enabled, by the great length of its legs, to wade into some depth of water, where it stands motionless till some of the finny tribe approach, when in an instant it darts its bill into them. Its digestion is as quick as its appetite is voracious, and of course commits vast devastation in ponds and shallow waters. They feed frequently by moonlight, at which time they become tolerably fat, being not only less disturbed in the night, but it has been observed that fish then come into the shoaler waters: besides fish, frogs and toads have been found in their stomachs.

In the breeding season they congregate, and make their nests very near each other. Mr. Pennant mentions having seen eighty nests on one tree. We once saw a heronry on a small island in a lake in the north of Scotland, whereon there was only one scrubby oak tree, which not being sufficient to contain all the nests, many were placed on tbe ground.

* The Heronries recorded to be existing at present in this country, are at Penhurst Place, Kent; at Hutton, the seat of Mr. Bethel, near Beverley, in Yorkshire; at Picton, the seat of Lord Caernarvon; in Gobay Park, on the road to Penrith, near a rocky pass called Yew Crag, on the north side of the romantic lake of Ulswater; at Cressi Hall, six miles from Spalding, in Lincolnshire; at Downington, in Holland, in the same county; at Brockley Woods, near Bristol; at Brownsea Island, near Poole, in Dorsetshire; and at Windsor. Besides these, I am acquainted with a small one in the parish of Craigie, near Kilmarnock, in Ayrshire, the only one, save that near Ulswater, which I have visited.

Belon mentions it as one of the extraordinary feats performed by the divine king, Francis I., that he formed two artificial heronries at Fontainebleau,—"the very elements themselves," he adds, "obeying the commands of this divine king (whom God absolve!!!); for to force nature is a work partaking of divinity."[1] In order to enhance the merits of these French heronries, he undertakes to assert, that they were unknown to the ancients, because they are not mentioned in any of their writings; and for the same reason he concludes that there are none in Britain. Before Belon's time, on the contrary, and before the "Divine" constructor of heronries in France was born, there were express laws enacted in England for the protection of Herons, it being a fine of ten shillings to take the young out of the nest,[2] and six shillings and eight pence for a person without his own grounds, killing a Heron, except by hawking, or by the long-bow;[3] while in subsequent enactments, the latter penalty was increased to twenty shillings, or three months' imprisonment.[4] At present, however, in consequence of the discontinuance of hawking, little attention is paid to the protection of heronries, though, I believe, none of the old statutes respecting them have been repealed. Not to know a hawk from a *Heronshaw* (the former name for a Heron) was an old adage, which arose when the diversion of Heron-hawking was in high fashion: it has since been corrupted into the absurd vulgar proverb, "not to know a hawk from a handsaw."[5]

HERRING GULL (*Larus fuscus*, Linnæus.)

Larus fuscus, *Linn.* Syst. 1. p. 225. 7.—*Gmel.* Syst. 2. p. 599. 7.—Ind. Orn. 2. p. 815. 8.—Larus cinereus maximus, *Raii*, Syn. p. 127. A. 2.—*Will.* p. 262.—Larus griseus, *Briss.* 6. p. 162. 3.—*Ib.* 8vo. 2. p. 405.—Gavia grisea, *Briss.* 6. p. 171. 6.—*Ib.* 8vo. 2. p. 407.—Le Goéland a manteau gris brun, *Buff.* Ois. 8. p. 379.—Herring Gull, Br. Zool. 2. No. 246. t. 88.—*Ib.* fol. 141.—Arct. Zool. 2. No. 452.—*Lath.* Syn. 6. p. 372. 3.—*Will.* (Angl.) p. 345.—*Lewin's* Br. Birds, 6. p. 7.—*Walc.* Syn. 1. t. 113.—*Pult.* Cat. Dorset. p. 18.

This species weighs about thirty-three ounces; length twenty-three inches; bill yellow; on the lower mandible a reddish-orange spot; irides light yellow; orbits red. Head, neck, tail, and under parts, white; back, scapulars, and wing coverts, ash-colour; quill-feathers dusky, the five first black towards their ends, with a white spot near the tip; legs pale flesh-colour.

The young are at first mottled all over with brown and dirty white;

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[1] Oyseaux, p. 189. [2] 19 Henry VII. chap. 71. [3] Ibid. [4] 1 James, chap. 27. s. 2.
[5] Pennant, Brit. Zool. ii. 341. Vulgarities of Speech corrected, p. 704. Architecture of Birds. Chapter on Platform Builders, p. 181.

the quills dusky, without any white at the tips; tail with a dusky bar at the end; bill horn-colour; irides dusky; legs dark. In the second year the colours continue the same, but rather lighter; in the autumnal moulting the back becomes ash-colour; the irides get lighter, inclining to yellow; the bill the same; the rest of the plumage as before. In this state we have one now living of two years old last breeding season, which now, in October, shews no inclination to make any further change this year; from which we may fairly conclude, these birds do not arrive at maturity till the spring of the third year, and perhaps not till the autumn, the principal moulting season. Nor can we be yet certain it is then perfect; for, upon examining specimens we have of the next change, we find the wing coverts still mottled with brown; the head and neck streaked with dusky brown; the bar in the tail broken by numerous white undulated streaks running down the webs; the quills, back, scapulars, and under parts of the body, perfect; bill and irides yellowish; legs pale flesh-colour. This should seem the last stage towards perfection; and, as this was killed in the summer, it is most probable they are not perfected till the autumn of the third year.

In the two first years the young of this and the less black-backed gull are so much alike, that they cannot be ascertained till the matured feathers begin to shew on the back. This was ascertained by domesticating one which lived thirteen years. At five years old, the tail of this bird was perfected, and the streaks increased on the head and neck, as they should do at that season. In the succeeding spring the head and neck became pure white, and nothing remained to be perfected but the point of the bill, which was a little dusky. It begins moulting about the middle of August, when it annually assumes the mottled head and neck. About the middle of February the partial spring moulting commences, the mottled feathers are discharged, and succeeded by pure white.

This bird had the range of the lawn, but usually took its station at the kitchen window when hunger pressed. When the weather was mild, and the ground moist, it was amusing to observe its method of catching worms, by a perputual trampling on the same spot, turning about in all directions, and eagerly examining for those that rose out of the ground, which were instantly seized, and the same work renewed. Similar means are frequently used by fishermen to procure worms for bait, but it could hardly be conceived that the slight pressure or concussion, occasioned by the trampling of so small a body as a Gull, should force the worms from their retreat, but such is the fact. Thus, where man is directed by reason to procure the object of his search,

this bird as successfully obtains it by instinct. In the summer it is equally amusing to see this bird catch chaffers, (*Melolontha vulgaris*, and *Zantheumia solstitialis*,) and the common large dung beetle, (*Geotrupes stercorarius*,) which fly about in the dusk of the evening throughout the summer months. These are most dexterously caught, if within reach of a flirt with mutilated wings.

At four years old, its piercing and inharmonious cry became incessant in the spring, from which it may be inferred that at that age this species usually begin to breed, and ours being probably a male, its clamour proceeded from the common impulse of nature.

We cannot close this account of a favourite domesticated animal, without remarking the several accidents that befel it, which prove its hardy nature. It was first obtained by a shot in the wing, which obliged half the wing to be amputated. A few years since the bone of the thigh was broken, by some accident, close to the body, and as no art could set the fractured bone in such a situation, it was left to nature: in two or three months it united, and the limb was perfectly restored to action; and lately, by some unaccountable means, the wing which was before mutilated received a compound fracture close to the body, and as it was impossible for nature to form an union of the bone in a limb so situated, and on which the wind had so much power, we determined on amputation, having first applied a ligature just above the part taken off, suffering the ligature to continue, and without any other assistance the poor bird perfectly recovered.*

Whether these immatured birds breed we cannot be certain, but are inclined to think they do, as we saw a great many of them intermixed with the perfect ones in the gullery on an island off St. David's, where the nests were innumerable: they seemed equally clamorous with the others when disturbed. The nests were on the top of the island, amongst the grass and loose stones, composed of a small quantity of long dry grass, the eggs, which were two in number, of a dark olive-brown, with dusky blotches. Like others of the genus, this bird feeds indiscriminately on fish, and various other productions of the sea, particularly the star-fish. It is sometimes observed to trample the soft sand, by moving its feet alternately in the same place: for what purpose this singular action is intended, we cannot say, unless it is to force up the sand eels or other hidden prey, as the one mentioned above did the worms. They are plentiful on all our coast, and in the northern parts of Europe.

HEWHOLE.—A name for the Poppinjay.

HICKWALL.—A name for the Crank-bird.

HIGH-HOE.—A name for the Poppinjay.

HIOGGA.—A name for the Razor-bill.

HIRUNDINIDÆ (Vigors.)—*Swallows, or family of perchers (*Insessores*, Vigors.)*

HIRUNDO (Auctores.)—*Swallow, a genus thus characterised. Bill short, much depressed, and wide at the base; the upper mandible being keeled and bent at the tip; gape extending as far backwards as the eyes; nostrils at the base of the bill, oblong, and partly covered by a membrane; legs with the shank short; the toes slender, three before and one behind; the outer toe united to the middle one as far as the first joint; tail of twelve feathers, generally forked; wings long and acuminated, the first quill being the longest.*

HISSING-OWL.—A name for the Barn-Owl.

HOARSE GOWK.—A name for the Snipe.

HOBBY (*Falco subbuteo*, Linnæus.)

*Falco subbuteo, *Lath.* Ind. Orn. 1. p. 47. 114.—*Gmel.* Syst. 1. p. 283.—*Raii*, Syn. p. 15. A. 14.—*Vigors*, Zool. Journ. 2. 339.—Dendro falco, *Briss.* 1. p. 375. 20.—*Ib.* 8vo. p. 109.—*Will.* p. 47.—Le Hobereau, *Buff.* Ois. 61. p. 277.—*Ib.* pl. Enl. 432.—Faucon Hobereau, *Temm.* Man. d'Orn. 1. p. 25. 2 ed.—Baumfalke, *Bechst.* Tasschenb. Deut. 1. p. 36.—Hobby, Br. Zool. 1. No. 61—Arct. Zool. 2. p. 227. C.—*Will.* (Angl.) p. 83.—*Lewin's* Br. Birds, 1. t. 21.—*Lath.* Syn. 1. p. 103. 90.—*Ib.* Supp. p. 28.—*Mont.* Orn. Dict.—*Ib.* Supp.—*Pult.* Cat. Dorset. p. 3.—*Don.* Br. Birds. 4. p. 91.—*Walc.* Syn. 1. t. 21.—*Bewick's* Br. Birds, 1. p. 41.—*Shaw's* Zool. 7. p. 193.—*Flem.* 41.—*Selby*, 8vo. pl. 18. p. 41.*

This species weighs about seven ounces; length twelve inches; bill blue; cere and orbits yellow; irides dusky; the head and upper parts of the body are of a dark dusky brown, almost black, dashed with ash-colour; the feathers margined with pale rufous-brown; over the eye a light stroke; beneath the eye a black patch, extending in a point from the under mandible down each side of the throat; chin and throat white, extending round each side of the neck, and partly encircles it, but is broken behind by dusky streaks, and the white becomes more ferruginous as it inclines backward; the coverts of the wings like the back, but the feathers more slightly edged: quill-feathers dusky black, with oval ferruginous spots on the inner webs; the breast, belly, thighs, and under tail coverts, ferruginous, palest on the former, marked with dusky streaks; the tail like the back; barred on the inner webs with rust-colour, except the middle feathers; tips whitish; legs yellow; claws black. The female weighs about nine ounces, sometimes more, and very much resembles the male in plumage, but not so dark above, and the lighter parts beneath not so ferruginous. The wings of this bird are long and pointed, but do not reach to the end of the tail when closed; the second feather is longest.

This is a migrative species, at least it has never been observed with us in winter, but arrives in April, and after performing the offices of incubation, and rearing its young, leaves us again for the warmer latitudes, in the latter end of October, about the time the merlin arrives in the southern parts. It builds its nest in trees, and sometimes takes possession of a deserted crow's nest: the number of its eggs is usually four, of a bluish white, with olive-green or yellowish-brown blotches. We have seen three young ones taken from a nest, which were not of so dark a colour as the old birds.

Small as this species of falcon is, it is inferior to none in point of courage, while its flight is wonderfully rapid, and supported with undiminished vigour for a considerable time; it will frequently pounce upon a partridge; but its favorite game seems to be the lark, to which it is a great enemy; and it is frequently taken in pursuit of them by bird-catchers, in their nets.

We have frequently witnessed its flight in pursuit of this bird, and it is astonishing to observe how dexterously the little creature avoids the fatal stroke until it becomes fatigued. A Hobby in pursuit of a lark was joined by a hen-harrier, who not being so rapid on wing, was usually behind, and ready to avail himself of the sudden turns the unfortunate lark was compelled to make, to avoid the talons of the Hobby; however, after numberless evolutions, the hen-harrier relinquished, being unequal to the chace, and left the deadly stroke to one better adapted for rapid and durable flight, and aerial evolutions. The country was open, and as far as the eye could discern the chace continued, but doubtless without a chance of the lark's avoiding the fatal blow.*

* A male Hobby perceiving a goldfinch in a cage, within a window which happened to be open, dashed at the imprisoned bird, notwithstanding several persons were in the room; but being alarmed at the natural vociferations of some young ladies for the safety of their darling, the intruder mistook the passage by which he entered, and flew against the glass, when his retreat was cut off, and he was secured.

This species was formerly trained for hawking, but more commonly used for taking partridges and larks with a net, which was termed daring, that is, the Hobby was cast off, which so frightened the birds, that they readily suffered a net to be drawn over them.

HOLM SCREECH.—A name for the Missel Thrush.

HONEY BUZZARD (*Pernis apivorus*, CUVIER.)

*Falco apivorus, *Linn.* Syst. 1. sp. 130.—*Gmel.* Syst. 1. p. 267. sp. 28.—*Lath.* Ind. Orn. 1. 25. 52.—*Briss.* 1. p. 410.—*Ib.* 8vo. p. 117.—*Raii*, Syn. 16. 2.—*Müller*,

No. 68.—Pernis apivorus, *Flem.* Br. Anim. p. 52.—*Vigors*, Zool. Journ. p. 340.—Falco Poliorinchos, *Bechst.* Tasschenb. Deut. 1. p. 19.—Buse Bondrée, *Temm.* Man. d'Orn. 1. p. 67. 2d. edit.—La Bondrée, *Buff.* Ois. 1. p. 208.—*Ib.* pl. Enl. 420. a yearling bird.—Wespen Busard, *Meyer*, Tasschenb. Deut. 1. p. 39.—*Ib.* Vög. Liv. und Esthl. p. 12.—Honey Buzzard, Br. Zool. 1. No. 56.—*Ib.* fol. 67. t. A. 4. and A. 4.—Arct. Zool. 2. p. 224. I.—*Will.* (Angl.) p. 72.—*Lewin's* Br. Birds, 1. t. 1.—*Lath.* Syn. 1. p. 52.—Supp. p. 14.—*Albin*, 1. t. 2.—*Mont.* Orn. Dict. & Supp.—*Pult.* Cat. Dorset.—*Walc.* Syn. 1. t. 7.—*Bewick's* Br. Birds, 1. p. 17.—*White's* Hist. Selb. 1. t. 7.—*Shaw's* Zool. 7. p. 114.—*Selby*, pl. 8. 8vo. pl. 1. p. 22.*

Provincial.—Capped Buzzard.

This species weighs about one pound ten ounces; length twenty-three inches; breadth four feet one inch. The bill and cere dusky; irides bright yellow. The head is brown, tinged with ash-colour; the feathers at the base of the bill small and close, without hairs, as in most of the hawk tribe; all the other parts above are of a deep brown; the chin whitish; breast and belly light brown, marked with brown bars, tinged with rust-colour; the tail brown, with two broad bars of dusky brown, one of which is very near the end; legs strong, and of a dull yellow. The bird from which this description is taken, was killed in Lord Carnarvon's park at Highclere in Berkshire, and presented to us by that nobleman. At the time it was shot, it was skimming over a large piece of water; but whether it was male or female we have not noted, though we believe the latter.

The Honey Buzzards seem to vary considerably in their markings; that mentioned in the British Zoology was white beneath, with dusky strokes pointing downwards; on the tail were three broad dusky bars, between which were two or three of the same colour, but narrower. Linnæus remarks, that the tail has but one cinereous bar, and the tip white; while Albin's bird is described as having no bar on the tail; that described by Latham in his Synopsis, agrees pretty nearly with the above.

This appears to be a very rare species. Latham observes, that during the many years he has been a collector, one specimen only came to him fresh. The name seems to have been derived from its feeding on the larvæ of wasps, and probably bees; the first of which, Willughby informs us, he found in its nest.

A few years ago, the Rev. Mr. Holdsworth, who resides near a large piece of water, called Slapson Ley, in South Devon, close to the sea, noticed a large species of hawk skimming over the water, in pursuit of the large dragon fly, (*Libellula,*) which it seized with its talons, and took from thence with its beak. The bird was observed to frequent the lake daily for some time, for the purpose of preying on these insects; and from his description of the bird, we are led to believe that

it was the Honey Buzzard. They are said to be found in the open parts of Norway, Russia, and Siberia, near the woods, and to feed upon small lizards and caterpillars, both smooth and hairy; all of which have been found in its stomach on dissection.

This elegant bird is distinguished from all its congeners, by the small round and closely set feathers that cover the space between the bill and eyes. This peculiarity has induced Cuvier to add it to his genus or division, *Pernis*.

It builds its nest in lofty trees like the common buzzard, and lays four white eggs, spotted with reddish brown. Mr. White mentions one egg only being found in the nest, which contained the embryo young; he describes it as smaller, and not so round as that of the buzzard, dotted at each end with small red spots, and surrounded in the middle with a broad bloody zone.

HOODED CROW (*Corvus Cornix*, Linnæus.)

Corvus cornix, *Linn.* Syst. 1. p. 156. 5.—*Gmel.* Syst. 1. p. 366. 5.—Ind. Orn. 1. p. 153. 7.—*Temm.* 1. 109.—Cornix cinerea, *Raii*, Syn. p. 39. A. 4.—*Will.* p. 88. t. 18. and 77.—*Briss.* 2. p. 19. 4.—La Corneille mantelée, *Buff.* 3. p. 61. t. 4.—Royston Crow, *Will.* (Angl.) p. 124. t. 18. 77.—*Albin*, 2. t. 23.—Hooded Crow, Br. Zool. 1. No. 77.—*Ib.* fol. p. 76. t. D. 1.—Arct. Zool. 2. p. 251. D. *Lath.* Syn. 1. p. 374. 5.—*Ib.* Sup. p. 77.—*Levin's* Br. Birds, 1. t. 36.—*Walc.* Syn. 1. t. 35.—*Don.* Br. Birds, t. 117.—*Pult.* Cat. Dorset. p. 5.—*Flem.* 87.

Provincial.—Hoody. Dun Crow. Scare Crow. Bunting Crow. Grey-backed Crow.

This species weighs about twenty-two ounces; length twenty-one inches; bill black, in size and shape like the carrion crow; irides dusky; the head, underside of the neck, the point of the breast, wings, and tail, are of a glossy bluish-black; belly, back, scapulars, and upper side of the neck, are of a light ash-colour; legs and claws black.

The Hooded Crow visits the southern parts of this kingdom in October, and retires northward to breed in the beginning of April; it is found in some parts of Scotland during the summer; and we have received its eggs from Ireland, in some parts of which it continues the whole year.

The nest and eggs are similar to those of the common crow. In England these birds are principally found near the sea-coast, where the various animal matter, thrown up by the tide, affords a constant supply of food. It is also seen in considerable abundance upon some of our downs, or in the open champaign parts, where it feeds on grain, worms, and carrion. Ten or a dozen are not unusually seen perched together in the neighbourhood of a dead sheep, patiently watching till the shepherd's dog has filled his paunch, and, retiring to his master's cot, is slunk in deep repose. Like the last species, it attacks the eyes of

sickly animals. We have seen it make repeated attacks upon the eyes of weakly sheep, and it generally succeeds if the animal is incapable of rising. Mr. Pennant informs us this is the only species of genuine crow in all the Hebrides, Orkneys, and Shetlands; the carrion crow and the rook being unknown there. It is not uncommon in Germany, and is also found in Russia and Siberia.

HOODED GULL (*Larus atricilla*, LINNÆUS.)

*Larus atricilla, *Gmel.* 1. 600.—*Lath.* Ind. 2. 813.—Larus ridibundus, *Wils.* Amer. Orn. 9. 74. 4.—Laughing Gull, *Catesby*, Carolina, 1. 89.—*Penn.* Arct. Zool. 2. 454.—*Lath.* Syn. 6. 383.—*Mont.* Dict.—*Flem.* p. 142.—Baltner's Sea Mew, *Will.* p. 346.—*Temm.* 2. p. 779.

The bill and feet are deep lake red; hood of dark bluish ash-colour; quill-feathers all black, and two inches longer than the tail; length of the shank one inch and three-fourths.—(TEMMINCK.) In the month of August, 1774, we saw five of them together feeding in a pool upon the Shingley flats near Winchelsea; two only were black on the head; the others were mottled all over with brown. We also saw two others near Hastings, in Sussex. It is found in Russia and America, and, according to Natterer, on the coasts of the Mediterranean and the Adriatic.*

HOOK-BILLED DUCK.—A variety of the common Duck, with the bill lengthened and bent downwards.

HOOPER.—A name for the Wild Swan.

HOOPOE (*Upupa epops*, LINNÆUS.)

*Upupa epops, *Linn.* Syst. 1. p. 183.—*Gmel.* Syst. 1. p. 466.—*Lath.* Ind. Orn. 1. p. 277.—*Raii*, Syn. p. 48. A. 6.—*Will.* p. 100. t. 24.—*Briss.* 2. p. 455. t. 43. f. 1.—La Huppe, *Buff.* Ois. 6. p. 439. t. 21.—*Ib.* pl. Enl. 52.—*Temm.* Man. d'Orn. 1. p. 415.—*La Vaill.* Ois. de Parad. et Prom. 3. pl. 22.—Gebauduter Werdehope, *Meyer*, Tasschenb. Deut. 1. 114.—*Frisch*, (Vög.) t. 43.—Hoopoe, Br. Zool. 1. No. 90. t. 39.—Arct. Zool. 2. p. 283. A.—*Will.* (Angl.) p. 145.—*Albin*, 2. t. 42, 43.—*Edw.* t. 345.—*Lewin's* Br. Birds, t. 54.—*Lath.* Syn. 2. p. 687. 1.—*Ib.* Supp. p 122.—*Mont.* Orn. Dict.—*Bewick's* Br. Birds, 1. 123.—*Pult.* Cat. Dorset. p. 7.—*Walc.* Syn. 1. t. 53.—*Don.* Br. Birds, 1. t. 9.—*Shaw's* Zool. 8. p. 135.—*Flem.* 89.—*Selby*, pl. 40. f. 2. p. 118.*

The weight of this beautiful bird is about three ounces; length twelve inches; the bill is black, two inches and a half long, slender, and curved; irides hazel; the crown of the head is furnished with a crest composed of a double row of dull orange-coloured feathers, tipped with black, lengthening from the forehead backwards, the longest of which is above two inches; the sides of the head, neck, and breast, dull orange-colour, dashed with brown; upper part of the back browner; belly whitish; the greater quill-feathers are black, with a broad bar of white near the tips; on the secondaries the white decreases; those next the body are marked with several black and white bars; the coverts are barred in the same manner; those on the upper ridge of the

wing like the neck; the rump is white; the tail consists of ten black feathers, crossed with a large semilunar bar of white; the exterior feather white on the outer margin, except at the tip; legs short and black. In some the breast is described to be white; in young birds this part is marked with narrow dusky lines. The female resembles the male.

This bird is only occasionally met with in this country; every autumn perhaps produces a few; and instances have not been wanting to prove they have sometimes bred with us. In the Supplement to the General Synopsis, an account is given of a young one being shot in May. A pair is also mentioned to have begun a nest in Hampshire, but being disturbed, forsook it and went elsewhere. The nest is said to be made of bents, and lined with soft materials; the eggs, four in number, of bluish white, marked with pale brown spots. It builds in the hollow of a tree, and the nest has been remarked to be extremely fetid; probably occasioned by the fæces of the young, and not by the filthy food by which it has been supposed they feed their young.

These birds have been seen in most parts of Great Britain, from Scotland to the most southern parts, as we find on record; and we have known it killed in South Wales and in Devonshire. With us they seem to prefer barren situations. Their food is insects and worms. It is found plentiful in the deserts of Russia and Tartary: they are seen in small flocks at Gibraltar, in the month of March, on their passage northward, supposed to come from Africa. Sonnini saw them on the banks of the Nile; and Bechstein informs us that in Germany they frequent the meadows all the summer. In the month of August they form themselves into families in the plains, and early in September they leave that country, returning again in the month of April.

HORNED DOUKER.—A name for the Horned Grebe.

HORNED GOOSE.—A name for the Brent Goose.

HORNED GREBE (*Podiceps cornutus*, LATHAM.)

* Podiceps cornutus, *Lath.* Ind. 2. 782. sp. 5.—Colymbus, sine Podiceps minor, *Raii*, Syn. p. 190. 14.—Colymbus cornutus, *Gmel.* 1. 591. sp. 19.—Colymbus cornutus minor, *Briss.* 6. p. 50. 5.—Le Petit Grebe cornu, *Buff.* 8. 237.—Horned Grebe or Dobchick, *Edw.* Glean. Tab. 145. bad fig.—*Lath.* Syn. 5. 288. 6. var. A.—*Temm.* 2. 721.—*Flem.* Br. Anim. p. 131.

YOUNG.

Podiceps obscurus, *Lath.* Ind. 2. 782. sp. 4.—Colymbus minor, *Briss.* 2. 56. No. 7.—Dusky Grebe, *Lath.* Syn. 5. 285.—*Mont.* Dict.—Colymbus obscurus, *Gmel.* Syst. 1. p. 592.—Colymbus caspicus, *Gmel.* Syst. 4. p. 137.—*Ib.* 1. p. 593.—Le petit Grebe, *Buff.* Ois. 8. p. 232.—Black and white Dobchick, *Edw.* t. 96.

This bird is about thirteen inches and a half in length to the end of the rump-feathers; breadth twenty-two inches; the bill is near an inch long, dusky, lighter at the base of the under mandible, and inclining

to pink, the very tip light horn-colour; lore crimson; irides the same, but round the pupil a circle of white, and the exterior edge of the iris is shaded to nearly white. The head is greatly enlarged by the feathers; those on the top are black, tinged with dark green; the cheeks and throat the same; the feathers very long, forming a sort of ruff; from the base of the upper mandible originates a broad bar of dull orange-yellow, that passes through the eye to the hind head, growing gradually broader; these form a tuft on each side, and are somewhat erectable, appearing like ears; the forehead dusky ferruginous; the back of the neck and upper part of the back dark brown, dashed with ferruginous; the back, scapulars, and rump, dusky, faintly edged with cinereous; the wing coverts and twelve first quill-feathers brown; the thirteenth white on the inner web; the eleven next all white, except the last, which is brown on the outer web; the chin is black, a little mottled with white; the under part of the neck and upper breast, running far behind and down under the wings, bright ferruginous chestnut; the rest of the under parts glossy satin white; the back part of the thighs ferruginous brown: legs dusky on the outside, pale on the inside; toes pale down their middle, dusky at the edges.

This bird, which was rescued from the hands of a fisherman as he was just going to pick it, was killed near Truro, in Cornwall, on the fourth of May, 1796, and presented to us by a friend. It was a male bird, and is now in our museum. It had no *labyrinth*, nor any thing uncommon in the *trachea*.

Dr. Latham says it is found in Sclavonia. Mr. Pennant says, in his Arct. Zool. ii. No. 417, that the Horned Grebe is found at Hudson's Bay, in June, and breeds in fresh water; appears at New York in the spring, where it is called the Water Witch, from its vast quickness in diving.

We cannot help expressing our doubts concerning these birds. If we consider that the Grebes are all subject to great variety in plumage, occasioned by age; and if we compare the various descriptions given by authors of the Horned or Sclavonian, we shall not find any very essential difference from the Eared Grebe. Temminck, however, is of opinion that they are of a distinct species, and easily distinguished as such. "Some authors," says he, "have confounded this species with the Eared Grebe, (*Podiceps auritus*) doubtless from the resemblance in the feathers on the head, but it is easy, by comparing the description, to distinguish the adult of this species from the other; this having the tuft on the head behind the eyes, while in the other it covers the orifice of the ear; the young of these species are more

difficult to detect, there being a difference in the bill, and also in the iris, which in the Horned Grebe is composed of two colours, but in the Eared Grebe of only one. This species is found in great abundance, in the south and east of Europe, but is rare in Germany, and only found accidentally in Holland; the nest is constructed of grass, floating among the reeds; it lays three or four white eggs, stained with dirty brown."*

HORN FINCH.—A name for the Petrel.

HORN OWL (*Otus aurita*, Ray.)

*Strix Otus, *Linn.* Syst. 1. p. 132. 4.—*Gmel.* Syst. 1. p. 288. sp. 4.—*Lath.* Ind. Orn. 1. p. 53. 7.—*Raii.* Syn. p. 25. A. 2. *Will.* p. 64. t. 12.—Le Moyen Duc, ou Hibou, *Buff.* Ois. 1. p. 342.—*Ib.* pl. Enl. 29.—Hibou Mogen Duc, *Temm.* Man. d'Orn. 1. p. 102,—Mittler Ohreule, *Bechst.* Naturg. Deut. 2. p. 896.—*Meyer*, Tasschenb. Deut. 1. p. 93.—*Frisch*, Vög. 29.—Hoorn Uil, *Sepp.* Nederl. Vög. p. 303.—Horn Owl, *Flem.* Br. Anim. p. 56.—Long-eared Owl, *Penn.* Br. Zool. 1. No. 65. t. 30.—Arct. Zool. 2. No. 115.—*Lath.* Syn. 1. p. 121.—*Ib.* Supp. p. 42.—*Lewin's* Br. Birds, 1. t. 24.—*Mont.* Orn. Dict.—*Ib.* Supp.—*Walc.* Syn. t. 23.—*Will.* (Angl.) p. 99. t. 12.—*Bewick's* Br. Birds, 1. P. 1. 46.—Italian-eared Owl, *Lath.* Syn. 1. p. 122.—*Selby*, pl. 20. p. 52.*

This beautiful species is nearly fifteen inches in length; weight nine or ten ounces. The bill is black; irides orange-yellow. The feathers, of a hair-like form, that cover the bill, are white, with black shafts; over the eye and round the angle next to the bill is black; cheeks pale rufous; over the eyes are two tufts of feathers, erect like ears, composed of six feathers that appear in front, gradually lengthening from the first to the last; the hindmost is an inch and a half long, black, bordered with dull yellow; the circle round the face is white, speckled with black and rufous; those that immediately cover the ears are tipped only with black, forming a semicircular line of that colour; the general colour of the bird is an ochraceous yellow, elegantly streaked above with black, and speckled with the same, ash-colour, and white; beneath, the feathers are tinged with light ferruginous, streaked with black down the shafts; the quills are barred with black and cinereous; on the primores are two bars of dull yellow; the tail is barred, and speckled with dusky and cinereous; legs and toes are covered with down of a yellowish buff-colour; claws dusky.

This description is taken from a female; the male differs in nothing but in being rather less. The wings of this species are very long, reaching beyond the tail when closed, and crossing each other at the points; the second feather is the longest.

This is by no means so common as the tawny or white owls; and though it is frequently taken in England, very little is known of its habits. It is said to make no nest, but to take possession of that of a magpie or crow; and that it lays four or five eggs. It remains with us the whole year, having killed them both in summer and winter; of

course they must breed with us. An ingenious friend informed us he found an owl's nest in a tree covered with ivy, which had three white eggs; and that, from the appearance of the bird as it flew out, he had no doubt it was this species. It must be observed, the other owls of this country are never known to build amongst the branches of trees, from which we may conclude the nest above mentioned was of this species.

This bird frequents large woods, and wooded tracts; is partial to fir, box, or holly plantations, where it more readily conceals itself by day amongst the evergreen foliage, as well in winter as in summer.

The one before was killed in the winter as it was flying out of a large holly-bush in Cornwall; and we have seen others in several parts of the kingdom.

Its principal food is mice, and sometimes small birds taken at roost: Selby found in the stomach of one of these the skulls of five mice, which were, without doubt, he adds, the relics of its repast the previous night. When attacked, or taken by surprize, it will throw itself on its back, and make a vigorous defence with its claws, hissing and snapping with its bill. In this situation, the ears are fully elevated, and thrown forward. It is never seen to fly in the day, except disturbed.

The note is unknown: most of the genus make a screeching noise, but the tawny owl is the only one with us that is known to hoot, and is so commonly heard in the evening. It is said to be far from uncommon in France and many other parts of Europe, as far as the northern parts of Russia. It is also found in some parts of America, and is common at Hudson's Bay.

HORRA.—A name for the Brent Goose.

HORSE-FINCH.—A name for the Chaffinch (*Fringilla spiza*, Rennie.)

HOUSE MARTIN.—A name for the Window Swallow.

HOUSE SPARROW.—A name for the common Sparrow.

HOUSE SWALLOW.—A name for the Window Swallow.

HOVER HAWK.—A name for the Kestril.

HOWLET.—A name for the Screech Owl.

HOWSTER.—A name for the Knott.

HUCKMUCK.—A name for the Hay-bird.

HYBRID GROUS.—A supposed Hybrid Bird.

Ibis.

IBIS (*Ibis Falcinellus*, Temminck.)

*Tantalus igneus, *Gmel.* Syst. 2. p. 115. 14.—Ind. Orn. 2. p. 708. 16.—Numenius castaneus, *Ib.* 5. p. 329. 5.—Le Courlis verd. *Buff.* Ois. 8. p. 29. & 31.—Bay Ibis, Arct. Zool. 2. p. 460.—*Ib.* Supp. p. 67.—*Lath.* Syn. 5. p. 113. 12. & p. 114. 12. A.—Br. Miscel. t. 18.—Tantalus viridis, *Gmel.* Syst. 1. p. 648.—Numenius viridis, *N. C. Petr.* 15. p. 462. t. 19.—Green Ibis, *Lath.* Syn. 5. p. 114. 13.—Linn. Trans. 9. p. 198.—Glossy Ibis, *Lath.* Syn. 5. p. 115. 14.—*Walc.* Syn. 2. t. 132.—*Lewin's* Br. Zool. 4. t. 152.—*Don.* Br. Birds, 5. t. 1. 8. *Mont.* Orn. Dict. & Supp.—Brazilian Curlew, Nat. Miscel. 17. t. 705.

It is not a little surprising that the Glossy Ibis should have so long continued multiplied into three distinct species, as it appears to be by no means an uncommon bird in some parts of Europe. The Glossy Ibis has long been admitted into the British Fauna, but has been esteemed extremely rare: it is, however, together with its varieties, the Bay and the Green Ibis, more frequently observed with us than formerly, occasioned perhaps, only by the greater attention that in these days is paid to the subject of natural history.

We consider the variety usually called the Bay Ibis, (*Tantalus Fulcinellus,*) to be the most perfect state of plumage; the Green Ibis,

(*Tantalus viridis,*) to be the first or young bird; and the Glossy Ibis, (*Tantalus igneus,*) and all its variations, to be the intermediate approaches towards maturity. When the green variety begins to assume the copper or vinaceous colour on the wing coverts, it is then no other than the Glossy Ibis; and when further advanced, and the strong cast of bay appears about the head and neck, then it has been termed the Bay Ibis. All these varieties, with the several shades and intermediate gradations, have within these few years been shot in England.

Two in our collection, shot in Devonshire, are in their first plumage, with very little variation. Another, shot within these two or three years near Liverpool, and now in the collection of Lord Stanley, varies but little from what has been called the Glossy Ibis. One in Mr. Cumming's collection, shot also in Devonshire, in 1805, nearly at the same time as one of ours, is not very dissimilar to the green variety. That killed in Anglesea, and figured in the Naturalist's Miscellany for the Brazilian curlew, is very nearly, if not quite, in the plumage of the variety called the Glossy Ibis; but the vinaceous copper on the wing is too highly coloured for the bird it is intended to represent.

This species, like all the long, soft-billed birds, have their vernal and autumnal migrations; hence in the spring they go to the less inhabited parts of the north, where they find security about the rivers and interior lakes to propagate, after which they retire from a country which no longer affords them food, and spread over the southern parts of Europe, and many probably pass the Mediterranean, and enter Africa and Asia. It is remarkable that rarely, if ever, any instance has occurred of this and some other species of European birds having been observed to visit England in the spring. This, however, must be accounted for by supposing that birds in their vernal migrations approach their places of summer destination gradually, and not by long flights; consequently are not likely to have their latitudinal course varied by storms: besides, the vernal equinox is not so productive of violent gales of wind, nor indeed would such blow them to England, when on their passage from the south to the north of Europe, because they pass over land the whole way, and can alight when distressed. On the contrary, those who have spread into Denmark, Sweden, and perhaps Lapland, to breed, frequently remain till actually compelled to leave those more frigid climes, and take long flights in nearly a southern direction; and thus if an autumnal equinoctial gale should overtake them, some are driven from their course, and obliged, after passing a part of the north sea, to rest and recruit in England. This will account

for these birds being occasionally found in the southern parts of England, and much more rarely in the northern parts, or in Scotland.

The green variety is about twenty-two inches in length; breadth two feet nine inches; weight about eighteen ounces; the bill is nearly four inches and a quarter in length to the gape, moderately curved, and of a bluish lead-colour; the sides of the upper mandible flesh-colour, fading into a purplish flesh-colour in a few days after being dead; from the nostrils, which are lower, a furrow continues to the end of the bill on each side; between the eyes and the bill, the skin is black; irides dusky; the head, neck, and all the under parts, dusky, more or less varied with changeable tints of bronze-colour, particularly on the breast; the throat, and sides of the head minutely speckled with white, with a white feather or two on the upper part of the neck before, and above the eyes are several of the same colour, tending obliquely to the hind part of the head, forming an irregular line of white spots; the back and wings, including the scapulars and quills, resplendent with changeable dark glossy green, changing to violet and purple in different points of view; the tail consists of twelve feathers a little forked when closed, and is of the same glossy colour as the wings; the legs bluish-black, three inches and a half bare above the knee; toes the same colour, the middle one upwards of two inches, independent of the claw; the hind one an inch, and so placed as to bear its whole length on the ground; the claws dusky, not much bent, the middle one brought to a sharp edge on the inside, and sometimes slightly but irregularly serrated; the female is a little less, weighing about sixteen ounces; length twenty-one inches, and is distinguished from the male by having a greater variety of white spots about the head and neck, and four transverse white bars on the upper part of the neck before. The variety called the Glossy Ibis, is considerably larger than the above; being described by Latham as nearly two feet in length; the bill five inches, smooth, round, much bent, colours green, fading to olive when dead; the general colour of the plumage, a black glossy green; the feathers slightly fringed with white, which gives the bird a gilded appearance when the sun shines upon it. In the Bay Ibis, there is that little superiority in size, which is natural between the old and the young of the same species, particularly in the bill, which in this variety is five inches long, and deeper in proportion at the base; the general appearance of the plumage, which in the first is a glossy bronze-colour, in this fades into a rusty brown, without gloss; the legs and toes dusky brown like the bill; the former measuring three inches and three

quarters from the foot to the knee. In all the above varieties of this species, the conformation of the bill and legs, in shape and length, is a strong proof that they are the same: another strong characteristic distinction, is the back toe, which is long, and a continuation of the heel, or plant of the foot.

The Ibis is adopted as a part of the arms of the town of Liverpool, and formerly, if not at present, stood conspicuous upon the Guildhall in truly golden array. This is termed a liver, from which that flourishing town derived its name, and is now standing on the spot where the pool was, on the verge of which the liver was killed. *

ICE-BIRD.—A name for the Rotche or little Auk (*Uria Alle*, Temminck.)

ICELAND GULL.—*Temminck and Captain Sabine give this as a variety of the Silvery Gull (*Larus argentatus*); Dr. Fleming makes it a distinct species (*L. Islandicus.*)

IMBER DIVER.—A name for the Loon.

INCUBATION.—It is probable birds are endowed with an instinctive power of regulating the necessary heat for this purpose; of course, should the heat of the air, together with the natural warmth of the body, on the close contact of the bird to the eggs, be too great, her feelings would dictate the necessity of leaving them for a time to cool. At the early period of incubation birds quit their eggs more frequently than at the time the *fœtus* is more perfect. Yet, in the advanced state, the *embryo* young is not in more danger of being destroyed, if so much; for we have frequently found a living *fœtus* in an egg that has been taken from the nest two days. If, however, the young is within a few hours of being excluded, and the egg is suffered to be some time cold, it either dies, or becomes so weak, as not to be able to extricate itself from the shell. Various degrees of heat will enlarge the embryo young, but regular heat seems necessary to its production; and yet artificial heat, regulated by the brooding of a bird, will not produce young with such certainty. In Egypt, a vast quantity of eggs are hatched by artificial heat in stoves. It is probable, however, one third or one fourth miscarry. The necessary heat for this purpose is about ninety-six degrees of Fahrenheit's thermometer, or thirty-two of Reaumur's scale. Birds frequently turn and change the situation of their eggs in the nest; besides this, it is possible the moisture of the bird's body may assist the natural growth of the *fœtus* and production of the young.

The male birds of some species supply the place of the female on the nest; but then it is of short duration, and rarely, if ever, when the eggs

are near hatching: at that time the female is frequently fed by the male. This is not common to all species, but very conspicuous in the rook, the pigeon, and many others. Many species of birds possess a *reservoir* for food, called a *craw*, or *crop;* this seems to answer the same purpose as the first *stomach* in ruminating animals. Here it is the food is softened and prepared for the stomach; from this reservoir it is by some ejected for the purpose of feeding their young; conspicuous in the pigeon.

The rook has a small pouch under the tongue, in which it carries food to its young. It is probable the use of the craw may be extended further than is generally imagined; for, besides the common preparation of the food to assist its digestion in the stomach, there are some species that actually secrete a lacteal substance in the breeding season, which, mixing with the half-digested food, is ejected to feed and nourish the young. The mammæ, from which this milky liquor is produced, are situated on each side the upper part of the breast, immediately under the craw. In the female turtle dove we have met with these glands tumid, with milky secretion, and we believe it common to both sexes of the dove genus. The cormorant or pelican genus possess no craw; but, to supply its place, they have a loose skin at the base of the under mandibles, capable of great distention, in which they carry fish to their young. The bustard is said to possess a bag of an astonishing size, for the purpose of retaining water; but the most unaccountable and extraordinary formation in the *trachea* of many of the males of the duck genus, called a *labyrinth*, is beyond our reach to discover the use of, as well as the singular flexure in the windpipe of the hooping swan and crane.

It is much to be wished that naturalists would pay more attention to these singular internal formations of birds; it would no doubt throw light on many obscurities in the division of species. The number of tail-feathers should also be well ascertained, for this alone is a mark of distinction, as in the cormorant and shag.

INGRIAN FALCON.—A name for the Orange-Legged Hobby.

INSESSORES (Vigors)—*Perchers, a numerous group of the smaller birds.*

IRIDES.—*The plural of Iris.*

IRIS.—*The coloured circle of the eye, which in man is blue, brown, grey, or hazel. In birds it varies very considerably.*

Jackdaw.

JACK CURLEW.—A name for the Whimbrell.

JACKDAW (*Corvus monedula*, Linnæus.)

* Corvus monedula, *Linn.* Syst. 1. p. 156. 6.—Faun. Suec. No. 89.—*Gmel.* Syst. 1. p. 376. sp. 6.—*Lath.* Ind. Orn. 1. p. 154. sp. 11.—*Briss.* 2. p. 24. 6.—*Raii*, Syn. p. 40. t. 5.—*Will.* p. 85. t. 19.—Le Choucas, *Buff.* Ois. 3. p. 69.—*Ib.* pl. Enl. 523.—Choucas, *Temm.* Man. d'Orn. 1. p. 111.—Die Dohle oder Turm-Rabe, *Bechst.* Naturg. Deut. 2. p. 1213.—*Frisch*, Vög. t. 67, 68.—*Meyer*, Tasschenb. Deut. 1. p. 99.—Jackdaw, Br. Zool. 1. No. 81. t. 34.—Arct. Zool. 2. p. 251.—*White's* Hist. Selb. p. 59 & 60.—*Lath.* Syn. 1. p. 378. 9.—*Ib.* Supp. p. 78.—*Lewin's* Br. Birds, 1. t. 37.—*Will.* (Angl.) p. 125. t. 19.—*Mont.* Orn. Dict.—*Pult.* Cat. Dorset. p. 5.—*Bewick's* Br. Birds, 1. p. 73.—*Low's* Faun. Orcad. p. 48. sp. 3.—*Shaw's* Zool. 7. p. 350.—*Flem.* Br. Anim. p. 88.—*Selby*, pl. 31. fig. 1. p. 75.

Provincial.—Daw. Kae, or Kay.*

This species weighs about nine ounces; length near thirteen inches; bill black; irides light grey; the forehead is black; the hind part of the head and back of the neck cinereous grey; upper parts of the body black, slightly glossed with blue; tail the same; the under parts dusky black; legs black.

This very common bird frequents old towers, ruined buildings, and high cliffs, where it builds, as well as in holes of trees. The nest is made of sticks, and lined with wool and other soft materials; the eggs

are five or six in number, bluish, spotted with black. These birds are gregarious, and frequently flock together with rooks; feeding in the same manner on grain and insects; they are fond of cherries, and will devour carrion in severe weather. It is seen to frequently perch on the back of sheep, not only to rob that animal of its wool to line its nest, but also to pick out the ticks with which it is infested. It is a very docile, tractable, and mischievous bird, easily made tame, and may be taught to talk. Some instances are mentioned of its breeding in rabbit-holes.

White says, from the information of a gentleman of Chichester, that "in a warren joining to his outlet, many daws build every year in the rabbit-burrows under ground. The way he and his brothers used to take their nests, while they were boys, was by listening at the mouths of the holes, and if they heard the young ones cry, they twisted the nest out with a forked stick. I should never have suspected the daws of building in holes on the flat ground. Another very unlikely spot is made use of by daws as a place to breed in, and that is Stonehenge. These birds deposit their nests in the interstices between the upright and the impost stones of that amazing work of antiquity; which circumstance alone speaks the prodigious height of the upright stones, that they should be tall enough to secure those nests from the annoyance of shepherd-boys, who are always idling round that place." He thinks the reason of their choosing these singular places, is the want of towers and steeples in these districts. Sonnini thinks that Jackdaws, (for what reason is not obvious,) prefer churches before any other place to nest in. Thus the fine church of St. Nicholas, in Lourain, is at all times covered with Jackdaws; and they build in the churches of Rouen and Mons, whilst they are never seen on the towers of Orleans, of Tours, or of Angers, though built nearly on the same plan.[1] I observed a considerable number about the beautiful spire of Harfleur, in Normandy.

Several varieties of this species are given by different authors; some entirely black, without the grey on the head and neck; others quite white, or mixed black and white. It is found in Denmark, France, and Germany; also in Rusia and the western parts of Siberia: but in most of these places it if found to be migratory.

JACK NICKER.—A name for the Goldfinch.

JACK SAW.—A name for the Goosander.

JACK SNIPE (*Scolopax gallinula*, LINNÆUS.)

Scolopax gallinula, *Gmel.* Syst. 2. p. 662.—*Lath.* Ind. Orn. 2. p. 715. 8.—*Flem.* Br. Anim. p. 106.—*Temm.* Man. d'Orn. 2. p. 678.—Gallinago minima, *Raii,*

[1] Oiseaux, Art. Le Frenx.

Syn. p. 105. A. 3.—Gallinago minor, *Briss.* 5. p. 303. 3. t. 26. f. 2.—*Ib.* 8vo. 2. p. 287.—La petite Becassine, *Buff.* Ois. 7. p. 490.—Gid, Judcock, Jack Snipe, *Will.* (Angl.) p. 291.—Br. Zool. 2. No. 189. t. 68.—*Ib.* fol. 121.—Arct. Zool. 2. No. 367.—*Albin*, 3. t. 86.—*Lath.* Syn. 5. p. 136. 8.—*Lewin's* Br. Birds, 4. t. 159.—*Walc.* Syn. 2. t. 139.—*Pult.* Cat. Dorset. p. 14.

This is about half the size of the common snipe, and weighs about two ounces; length eight inches and a half. The bill is nearly two inches long, of a lead-colour, black at the point, and the ridge of the upper mandible light horn-colour; irides dusky. The crown of the head black, slightly edged with rust-colour, bordered on each side with a yellowish streak, beneath which is a dusky one; and close above the eye is another streak of a light colour; from the bill to the eye is a dusky stroke; the neck is varied with ferruginous-brown and dusky, dashed with cinereous above; the back, rump, and scapulars of a fine glossy changeable green and purple; the exterior webs of the latter deep buff-colour, forming two very conspicuous lines from the shoulders to the tail; quills dusky; wing coverts dusky, bordered with cinereous and brown; the lower breast and all beneath white; the tail cuneiform, consisting of twelve pointed dusky feathers, dashed more or less with ferruginous; legs greenish.

The Jack Snipe is not near so numerous as the other species, but is frequently found in the same places; is a more solitary bird, and never known to be gregarious. Amongst rushes, or other thick covert, it will lie till in danger of being trod on, and when roused seldom flies far. It comes to us later than the common snipe, and is never known to remain in this country during the breeding season. It is found in most parts of Europe, and in North America.

JADREKA SNIPE.—A name for the Stone Plover.

JAY (*Garrulus glandarius*, Brisson.)

* Corvus glandarius, *Linn.* Syst. 1. p. 156. 7.—*Gmel.* Syst. 1. p. 378.—*Lath.* Ind. Orn. 1. p. 157. 18.—*Raii*, Syn. p. 41. A. 2.—*Will.* p. 88. t. 19.—Garrulus, *Briss.* 2. p. 49. 1.—*Vigors*, Zool. Jour. 2. p. 399.—Garrulus glandarius, *Flem.* Br. Anim. p. 86.—Le Geai, *Buff.* Ois. 3. p. 107. t. 8.—*Ib.* pl. Enl. 481.—Geai, *Temm.* Man. d'Orn. 1. p. 114.—*Le Vaill.* Ois. de Parad. et Geais, pl. 40. and 41.—Pica glandaria, *Klein.* Av. p. 61. 21.—*Will.* p. 88.—Eichel Krahe, *Bechst.* Naturg. Deut. 2. p. 1243.—*Frisch*, Vög. t. 55.—Jay, Br. Zool. 1. No. 79.—Arct. Zool. 2. p. 252. E.—*Will.* (Angl.) p. 130. t. 19.—*Lewin's* Br. Birds, t. 38.—*Haye's* Br. Birds.—*Lath.* Syn. 1. p. 384. 19.—*Ib.* Supp. p. 79.—*Mont.* Orn. Dict.—*Ib.* Supp.—*Pult.* Cat. Dorset. p. 5.—*Walc.* Syn. 1. t. 37.—*Bewick's* Br. Birds, 1.—*Shaw's* Zool. 7. p. 356.—*Selby*, pl. 36. p. 79.

Provincial.—Jay-pie, or Geae Pyet.*

This beautiful species weighs seven ounces; length about thirteen inches. The bill dusky; irides whitish, or pearl grey; the forehead white, streaked with black; the chin white, with a broad streak of black running from the corners of the mouth under each eye, and pointing downwards. On the crown of the head the feathers

are long, and in the form of a crest, which it can raise and depress at pleasure. The hind parts of the head, the sides, neck, breast, back, and scapulars a lightish brown colour, inclining to red; the lesser wing coverts inclining to bay: the greater coverts are elegantly barred with a rich blue and black alternately, the rest black; the greater quill feathers dusky; the exterior webs ash-colour, except the first. Six of the secondary quills are black, white on the exterior webs near the base, and tinged with blue; the two next entirely black; those nearest the body bay, tipped with black; rump, upper and under tail coverts white; the tail black; and the legs brown.

This bird is found in considerable numbers in most of the wooded parts of this country, but they seldom congregate together. Its nest is commonly built in high coppice wood or hedges, and sometimes against the side of a scrubby tree. It is formed of sticks, lined with fibrous roots, and the bird lays five or six eggs of a light brown colour, not very unlike those of the partridge, but smaller, and obscurely marked with a darker shade of brown.

The Jay is a cunning, crafty bird; is a great devourer of fruit and grain, and seems particularly fond of cherries and peas; will frequently plunder the smaller birds' nests of their eggs and young, and sometimes pounce upon the old birds, on which it preys, as well as on mice.

Its common notes are various, but harsh; it will, some time in the spring utter a sort of song in a soft and pleasing manner, but so low as not to be heard at any distance; and at intervals introduce the bleating of a lamb, mewing of a cat, the note of a kite or buzzard, hooting of an owl, and even the neighing of a horse. These imitations are so exact, even in a natural wild state, that we have frequently been deceived.

*These birds, which I call basket-makers, do not always select flexible materials which we should deem indispensable, but usually prefer brittle dead sticks, at least for the out-works, which are in fact constructed at the outset, much on the model of the platform builders. The Jay, for example, selects for its nest the fork of a bush or tree in a solitary part of a wood, precisely similar to the ring dove, (*Columba Palumbus*,) and commences the structure so exactly like it, that it would not be easy to tell the difference between a finished nest of the one, and a half-finished nest of the other. But it would seem that the Jay, though a much shrewder bird in many respects than the ring-dove, is not acquainted with the secret of preventing its eggs from rolling off a flat nest, perhaps because its five or six eggs are more difficult to manage than the ring dove's two. Upon the platform then, as a foundation, the Jay constructs a sort of rude basket-work of roots thickly matted together, the hollow being very shallow, just large enough to contain the eggs, and greatly smaller in

proportion than the basement. The specimen of the Jay's nest, in the British Museum, is quite flat, and composed of fewer materials than a ring-dove's. I consider it to be only the inner bottom of the basket, the base and sides having been trimmed off, as is frequently done by nest collectors. If this is not so, I can only say that it is very unlike any of the Jay's nests which I have examined in their original localities, both in England and Scotland, all of these having a shallow cup-shaped basket of matted roots, placed upon a platform of birch and other small twigs, very irregularly piled together.[1] Sepp's figure is much too regular.

In the autumn it feeds on acorns, which it is said to hoard for the winter, but this is certainly a mistake; such hoards, when found in our woods, belong either to the squirrel or to some species of mouse.

"It is frequently tamed," says Selby, "not only on account of the beauty of its plumage, but for the facility with which it learns to articulate words, and to imitate a variety of sounds. Bewick mentions one that could imitate the noise made by the action of a saw, and another that had been taught to hound a cur dog on the approach of cattle. The young are said, by Mr. Pennant, to follow the parent bird till the succeeding spring, but I have not been able to satisfy myself as to the fact."*

JER-FALCON (*Falco Islandicus*, LATHAM.)

ADULT.

* Faucon Gerfaut, *Temm.* Man. d'Orn. 1. p. 17.—Falco Islandicus candicans, *Lath.* Ind. Orn. 1. p. 32. 69.—*Gmel.* Syst. 1. p. 275. sp. 101.—*Meyer*, Tasschenb. Deut. 1. sp. 65. Falco rusticolus, *Gmel.* Syst. 1. p. 268. sp. 7.—*Lath.* Ind. Orn. 1. p. 28. 60.—Gyrfalco candicans, *Flem.* Br. Anim. p. 51.—Gerfaut de Norvége, *Buff.* Ois. 1. p. 239.—*Ib.* pl. Enl. 462.—White Jer Falcon, *Lath.* Syn. 1. p. 83 and 84.—*Ib.* Supp. p. 21.—Br. Zool. 1. No. 47. t. 19.—Arct. Zool. 2. p. 221. E.—*Lewin's* Br. Birds, 1. t. 16.

YOUNG.

Falco Gyrfalco, *Lath.* Ind. Orn. 1. p. 32, 68.—*Linn.* Syst. 1. p. 130.—*Gmel.* Syst. 1. p. 275. sp. 27.—Gyrfalco Islandicus, *Briss.* 1. p. 373. A. t. 31.—*Ib.* 8vo. p. 108.—*Muller*, No. 73.—Falco sacer, *Gmel.* Syst. p. 273. sp. 93.—Le Gerfaut, *Buff.* Ois. 1. p. 239. t. 13.—*Ib.* pl. Enl. 210. and 446.—Le Sacre, *Buff.* Ois. 1. p. 246. t. 14.—Iceland Falcon, Arct. Zool. 2. p. 216.—*Lath.* Syn. 1. p. 71. 5. B.—Jer Falcon, *Mont.* Orn. Dict.—*Ib.* Supp.—*Bewick's* Br. Birds, 1. p. 29.—*Low's* Fauna Orcad. p. 35.—*Selby*, pl. 14. p. 36.—Brown Jer Falcon, *Lath.* Syn. 1. p. 82.—Greenland Falcon, Arct. Zool. 2. p. 220.*

This species is superior in size to the goshawk. Length twenty-two inches; the bill bluish, tip black; cere blue ash-colour; irides dusky. The plumage generally white, spotted with brown; legs bluish ash-colour.

This bird is subject to much variety, either from age, sex, or climate. In the northern countries it is found quite white, which Temminck says is the effect of age, the whiteness increasing with years. Others

[1] Architecture of Birds. Chapter on Basket-making Birds, p. 197.

are said to be brown above, white beneath, spotted with brown; tail grey, with transverse brown lines, which nearly agrees with Temminck's description of the bird in the first and second year. Mr. Pennant says the bill is yellow; the whole plumage white, marked with dusky lines, spots, or bars; the head, breast, and belly with narrow lines, thinly scattered and pointing down; the wings with large heart-shaped spots; the legs pale blue, and feathered a little below the knees. In the collection of Mr. Comyns is a bird which appears to be a variety of this species. It is white, with a few scattered spots of dusky black on the upper part of the body, and the head streaked the same; the wings and tail black, the latter with a band of white at the end, and a little white at the base; the quills slightly tipped with white, the secondary quills and under coverts elegantly barred with black and white. The wings were very short in proportion to the size of the bird, for if the primary quills had been closed, they would certainly not have reached near the end of the tail.

This species of Falcon is very rare in England. It is known in the northern parts of Scotland, particularly the Orkney and Shetland isles, where it is said to be only a visitant. The Jer Falcon was held in estimation in the days of falconry, being a very bold bird, much used for the larger species of game, such as cranes and herons; it takes its prey by out-soaring, and darting down upon them, which it does with amazing rapidity and force. It builds in high and inaccessible rocks, and lays, according to Fleming, from three to five spotted eggs, about the size of those of the ptarmigan. In the young bird the ground of the plumage is dusky, edged and spotted with white, with the cere and margin of the eye bluish.

JONQUIL.—A name for the Canary Bird.

JUDCOCK.—A name for the Jack Snipe.

Kestrel.

KAE.—A name for the Jackdaw.

KAMTSCHATKA TERN.—A name for the Black Tern.

KATABELLA.—A name for the Hen Harrier.

KATE.—A name for the Hawfinch.

KATOGLE.—A name for the Eagle Owl.

KENTISH PLOVER.—A variety of the Ring Plover.

KESTREL (*Falco tinnunculus*, LINNÆUS.)

* Falco Tinnunculus, *Lath.* Ind. Orn. 1. p. 41. t. 98.—*Gmel.* Syst. 1. p. 278. 16 *Raii*, Syn. pl. 16. 16.—*Will.* p. 50. t. 5.—*Meyer*, Tasschenb. 1. p. 62.—Falco Tinnunculus alaudarius, *Gmel.* Syst. p. 279.—Accipiter alaudarius, *Briss.* 1. p. 379. 22.—La Cresserelle, *Buff.* Ois. 1. p. 379.—*Ib.* pl. Enl. 401. old male, and 471. the young of the year.—Faucon Cresserelle, *Temm.* Man. d'Orn. 1. p. 29. Turm-falke, *Bechst.* Tasschenb. Deut. 1. p. 37.—Kestrel, Stannel, or Windhover, *Will.* (Angl.) p. 84. t. 5.—Kestrel, Br. Zool. 1. No. 60.—*Ib.* fol. p. 68. t. A.—Arct. Zool. 2. p. 226. N.—*Lath.* Syn. 1. p. 94. 79.—*Ib.* Supp. p. 25.—*Lewin's* Br. Birds, 1. t. 19. Mand. F.—*Mont.* Orn. Dict.—*Walc.* Syn. 1. t. 19. *Pult.* Cat. Dorset, p. 3.—*Low's* Faun. Orcad. p. 37.—*Don.* Br. Birds, 3. t. 51.—*Shaw's* Zool. 7. p. 179.—*Haye's* Br. Birds, t. 4.—*Bewick's* Br. Birds, 1. p. 38. & 40. Mand. F.—*Flem.* Br. Anim. p. 50.—*Selby*, pl. 17. & 17*. p. 43.

Provincial.—Kastril, Stonegall, Creshawk.*

The male of this species of falcon weighs about seven ounces; length thirteen inches. Bill lead-colour; cere yellow; irides dusky and large. The crown of the head is of a fine cinereous grey; throat whitish;

under the eye a broad dusky streak, pointing downwards; the back, scapulars, and wing coverts are of a fine red brown, spotted and barred with black; the under parts light ferruginous, spotted with black; thighs and vent generally plain; greater quill feathers black, very slightly tipped whitish; the wing pointed; the second feather the longest; tail fine cinereous grey, with a broad black bar near the end; tip white; legs yellow.

The female is considerably larger, and is distinguished from the other sex by the head and tail being of the same colour as the back, which is not so bright a red brown as the male; the under parts are also lighter, and the black spots not so distinct, but more in streaks of dusky; the tail is marked with transverse dusky bars, with a broad one near the end.

This beautiful species of hawk feeds principally on mice, in search of which it is frequently seen hovering in the air, and quite stationary for a great length of time. We never have seen the Kestrel in pursuit of small birds, nor have we ever found feathers in the stomach, but chiefly the fur of mice and the exuviæ of beetles; but no doubt it will sometimes prey on small birds, as it is occasionally taken by birdcatchers in the act of pouncing on their call-birds. The young males resemble the female in plumage till after the winter of the first year, when they assume the grey head and tail.

"In summer," says Selby, "the cockchafer supplies to this species an object of pursuit and food, and the following curious account is given from an eye-witness of the fact. 'I had,' says he, 'the pleasure of seeing the Kestrel engaged in an occupation entirely new to me—hawking after cockchafers late in the evening. I watched him through a glass, and saw him dart through a swarm of insects, seize one in each claw, and eat them whilst flying. He returned to the charge again and again: I ascertained it beyond a doubt, as I afterwards shot him.'"

This is one of our most common species, being very generally spread throughout the kingdom, especially in the more rocky situations and high cliffs on our coast, where they breed. The nest is made of a few sticks, loosely put together, and lined with wool and other soft materials, built in trees, in some crevice, or projecting rocky shelf, and sometimes they content themselves with the deserted nest of a crow or magpie. It lays four or five eggs of a dirty white, blotched over with rust-colour of various shades; sometimes wholly covered with a deep rusty red; these are rather inferior in size to those of the sparrow hawk.

*"This well-known species," says Selby, "is distinguished, not only by the symmetry of its form, and its elegant plumage, but by the pe-

culiar gracefulness of its flight, and the manner in which it frequently remains suspended in the air, fixed, as it were, to one spot, by a quivering play of the limbs scarcely perceptible."*

KIDDAW.—A name for the Willock.

KILLIGREW.—A name for the Chough.

KING DUCK (*Somateria spectabilis*, FLEMING.)

Anas spectabilis, *Linn.* Syst. 1. p. 195. 5.—*Gmel.* Syst. 1. p. 907.—*Lath.* Ind. Orn. 2. p. 845. 36.—Le Canard à tête grise, *Buff.* Ois. 9. p. 253.—*Temm.* Man. d'Orn. 2. p. 851.—Anas freti Hudsonis, *Briss.* 6. p. 365. 15.—*Ib.* 8vo. 2. p. 458.—Grey-headed Duck, *Edw.* t. 154.—King Duck, Arct. Zool. 2. No. 481. —*Lath.* Syn. 6. p. 473.—*Lewin's* Br. Birds, 7. t. 245.—King Eider, *Flem.* Br. Anim. p. 120.—Trans. Linn. Soc. 12. pl. 30. fig. 1. 2. (Trachea).

This species is not much inferior in size to the eider duck. The bill is almost two inches long, of an orange-colour; at the base of the upper mandible is a ridged protuberance, flat on the top, and compressed on the sides, but divided into two, the elevated parts velvety black, passing on each side to the eyes; the crown of the head and nape are pale ash-colour; at the base of the upper mandible the feathers are pea-green, passing backwards on each side the neck, and taking in half the eye; beneath which, and round to the chin, the feathers are of a dirty white; but here the two colours are blended, and the white is lost by degrees in the green; under the chin is a black mark, diverging like the letter V inverted: the rest of the neck and breast are whitish; the middle of the back, the belly, and vent, black; wings dusky; on the middle of the coverts is a patch of white; quills black; the secondaries curve downwards over the quills; the shafts deep ferruginous, on each side the outer ones a patch of white; the tail is cuneiform, short, and black; legs dusky; *the windpipe, according to Captain Sabine, is precisely like that of the eider duck.*

The female is less; the protuberance on the bill not so large, nor so high-coloured, but the feathery ridge on the top is broader; the whole plumage brown, the middle of each feather dusky; six of the lesser quills are tipped with white, which forms a line of white on the wing; the rest of the quills and tail brown.

The young birds do not get the gibbosity of the bill, nor the males their mature plumage, *according to Captain Sabine, for four years.* These birds are subject to vary a little in their several changes, both with regard to the colour of their bill and plumage; they are sometimes found with a little white on the hind part of the head and on the back. *Mr. Bullock found the nest on a rock overhanging the sea, at Papa Westra, in the Orkneys, in June.*

The King Duck resides chiefly in the northern parts; they are plentiful at Hudson's Bay, where they breed on the sides of pools and rivers *In some parts of America, says Wilson, their nests are crowded so closely together, that a person can scarcely walk without treading on them.* The nest is made of sticks and moss, lined with down plucked from their own body. The eggs are five or six in number, rather less than those of the goose, of a whitish colour. It is not unfrequent in the north of Siberia and Kamtschatka, and common in Greenland, where the down is accounted of equal value to that of the eider duck, the flesh excellent, and the gibbous part of the bill a delicacy. The skins sewed together are used for winter garments.

These birds are not uncommon on the coasts of Norway; and we are assured by Mr. Pennant and others, that it sometimes frequents the Orkney isles, which has induced us to give it a place in this work.

* KINGFISHER (*Alcedo Ispida*, Linnæus.)

* Alcedo Ispida, *Linn.* Syst. 1. p. 179. 3.—*Gmel.* Syst. p. 448. sp. 3.—*Lath.* Ind. Orn. 1. p. 252. sp. 20.—*Raii*, Syn. p. 48. A. 1.—*Will.* p. 101. t. 24.—*Briss.* 4. p. 471. 1.—Gracula Atthis, *Gmel.* Syst. 1. p. 398. sp. 8.—*Lath.* Ind. Orn. 1. p. 192. sp. 10.—Ispida Senegalensis, *Briss.* 4. p. 485. 7. t. 39. f. 1.—Le Martin Pecheur, *Buff.* Ois. 7. p. 164. t. 9.—Le Baboucard, *Ib.* 7. p. 193.—*Ib.* pl. Enl. 77.—Martin Pecheur Alcyon, *Temm.* Man. d'Orn. 1. p. 423.—Gemeine Eis Vögel, *Bechst.* Naturg. Deut. 2. p. 1106.—*Meyer*, Tasschenb. Deut. 1. p. 134. *Frisch*, t. 223.—King's-Fisher, Br. Zool. 1. No. 88.—t. 38.—Arct. Zool. 2. p. 280. A.—*Albin*, 1. t. 54.—*Will.* (Angl.) p. 146. t. 24.—*Lath.* Syn. 2. p. 626. 16.—*Ib.* Supp. p. 115.—*Lewin's* Br. Birds, 2. t. 52.—*Mont.* Orn. Dict.—*Ib.* Supp.—*Bewick's* Br. Birds, 2. t. 19.—*Pult.* Cat. Dorset. p. 6.—*Walc.* Syn. 1. t. 52.—*Don.* Br. Birds, 4. t. 100.—*Shaw's* Zool. 8. p. 88.—*Flem.* Br. Anim. p. 90.—*Selby*, pl. 40. fig. 1. p. 121.

The weight of this beautiful bird is an ounce and a half; length seven inches; the bill is two inches long, and black, tinged with orange at the base of the lower mandible; irides hazel; the crown of the head is of a dark changeable green blue, with numerous small transverse bars of bright azure; from the upper mandible to the eye a dusky streak; the sides of the forehead rufous; behind the eye a broad stripe of red orange, at the lower angle of which, on each side, commences a yellowish white stripe, which almost meets on the back part of the neck; from the base of the lower mandible springs a blue streak, which runs to the side of the neck; the throat is buff-coloured; the under parts of a dull orange; darkest on the breast; the wing coverts like the upper part of the head, but not so much spotted; down the middle of the back, the rump, and upper tail coverts, fine bright azure; tail deep blue; legs red orange.

The bill of the female is not so long as in the other sex. *The colours also are deeper, and more of a green shade.*

This bird is found most frequently about clear running streams and rivers, in the banks of which it generally takes possession of a rat's hole to deposit its eggs. The many curious accounts which have been given of the nest of this bird, induced us to take some pains to discover the fact. The result of our researches are, that the hole chosen to breed in is always ascending, and generally two or three feet in the bank; at the end is scooped a hollow, at the bottom of which is a quantity of small fish-bones, nearly half an inch thick, mixed in with the earth. This is undoubtedly the castings of the parent birds, and not the young, for we have found it even before they have eggs, and have every reason to believe both male and female go to that spot, for no other purpose than to eject this matter, for some time before the female begins to lay, and that they dry it by the heat of their bodies, as they are frequently known to continue in the hole for hours long before they have eggs. On this disgorged matter the female lays to the number of seven eggs, which are perfectly white and transparent, of a short oval form, weighing about one dram. The hole in which they breed is by no means fouled by the castings; but before the young are able to fly, it becomes extremely fetid by the feces of the brood, which is of a watery nature, and cannot be carried away by the parent birds, as is common with most of the smaller species. In defect of which, instinct has taught them to have the entrance to their habitation ascending, by which means the filthy matter runs off, and may frequently be seen on the outside. We never could observe the old birds with any thing in their bills when they went in to feed their young; from which it may be concluded they eject from their stomach for that purpose.

*From the high authority of Montagu, the preceding description has been copied by every recent writer, with the exception of Temminck, who says nothing on the subject, and Wilson, who says of his belted Kingfisher (*Alcedo alcyon*) that "its nest is neither constructed of glue nor fish bones."[1] We are certain of the fact that this will apply equally to our own Kingfisher. In the bank of a stream, at Lee in Kent, we have been acquainted with one of these nests in the same hole for several successive summers, but so far from the exuviæ of fish bones ejected, as is done by all birds of prey, being dried on purpose to form the nest, they are scattered about the floor of the hole in all directions, from its entrance to its termination, without the least order or working up with the earth, and all moist and fetid. That

[1] Wilson's Am. Orn. iii. 60.

the eggs may by accident be laid upon portions of these fish bones is highly probable, as the floor is so thickly strewed with them, that no vacant spot might be found, but they assuredly are not by design built up into a nest.

The hole is from two to four feet long, sloping upwards, narrow at the entrance, but widening in the interior, in order perhaps to give the birds room to turn, and for the same apparent reason the eggs are not placed at the extremity. I am not a little sceptical as to its sometimes selecting the old hole of a water rat, which is the deadly enemy to its eggs and young; but it seems to indicate a dislike to the labour of digging. It frequents the same hole for a series of years, and will not abandon it, though the nest be repeatedly plundered of the eggs or young. The accumulation of cast bones in one of these old holes, has perhaps, given origin to the notion of the nest being formed of them. Small fish, such as banisticles, and minnows, seem to be their principal food, but they also eat slugs, worms, and leeches. They will occasionally suspend themselves on the wing, and dart on their prey like the osprey, but more frequently they will sit patiently perched on a bough over the water, and pouncing upon the small fish as they come near the surface, seize them with their bill.

It is rarely seen about the rocky rapid waters, where the dipper chiefly resorts, but is frequently found about wooded streams, and fish-ponds, inhabiting the shore of large salt water rivers, and estuaries.

From having good opportunities of studying the habits of this bird, I may remark, that it is not so very shy and solitary as it has been represented, for it has more than once allowed me to approach within a few yards of the bough on which it was perched. Mr. Jennings says that it is "rarely, if ever, found near the habitations of man;"[1] a statement at variance with my experience; for, "on the contrary, I am in the habit of seeing Kingfishers very often on the banks of a brook which runs past my garden at Lee, in Kent, not a hundred yards from the house in which I write this paragraph. A Kingfisher's nest was found with young last summer on the bank of the same brook, within gunshot of a whole row of houses."[2] A similar instance is given by one of Mr. Loudon's correspondents. Its obtaining its food from streams and shallow ponds causes it, however, frequently to be seen in secluded places.*[3] It flies with great rapidity, notwithstanding its wings are very short; but the motion of the wings are so very quick,

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[1] Ornithologia, p. 172. [2] Mag. of Nat. Hist. ii. p. 457.
[3] Architecture of Birds. Chap. on Mining Birds, p. 55.

as scarcely to be perceptible. When the young are nearly full feathered they are extremely voracious; the old birds not being capable of supplying them with food sufficient to satisfy the calls of hunger, they are continually chirping, and may be discovered by their noise.

The suspension of this bird by a thread, under the notion that its breast will always turn to the north, is as fabulous as that it will preserve woollen cloth from the moth.

*"I have once or twice," says Mrs. Charlotte Smith, "seen a stuffed bird of this species hung up to the beam of a cottage ceiling, and imagined that the beauty of the feathers had recommended it to this sad pre-eminence, till, on inquiry, I was assured that it served the purpose of a weather-vane; and though sheltered from the immediate influence of the wind, never failed to show every change, by turning its beak to the quarter whence the wind blew."[1] The learned, but somewhat credulous author of the "Physicæ Curiosæ," says the same, upon the testimony of his own observation. "Father Athanasius Kircher," he says, "had one of these birds sent him in a present by a friend, and being disembowelled and dried, it was suspended from the ceiling of his celebrated museum, from 1640 to 1655, when I left Rome; and though all the doors and windows were shut, it constantly turned its bill towards the wind, and this I myself observed with admiration and pleasure almost every day for the space of three years"!!![2]

It would be useless to follow the author in the romancing philosophy by which he pretends after Kircher, the possessor of the bird, to account for the phenomenon; for notwithstanding his personal testimony, the whole story is evidently quite fabulous. This, however, is nothing to the supposed power of the bird to avert thunder, to augment hidden treasure, and bestow grace and beauty on the person who carries it, at the same time not forgetful of itself, though dead, but renewing its plumage each season of moulting.[3]*

The marvellous accounts of Aristotle, Virgil, Ovid, and others, may be perused in Mr. Pennant's history of this bird, who has extracted the essence of those authors. The sailors of the present day do not find it has the power to calm the storm or hush the wind: they are very generally diffused throughout Europe, Asia, and Africa,; the only species out of nearly fifty that is found in the colder parts.

KIRKTULLOCK.—A name for the Shoveller.

KIRMAN.—A name for the Tern.

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[1] Nat. Hist. of Birds, i. p. 73. [2] Phys. Cur. ii. p. 1367.

[3] Aldrov. Orn. iii. p. 621, and Architecture of Birds, p. 57.

KITE (*Milvus ictinus*, SAVIGNY.)

*Falco Milvus, *Linn.* Syst. 1. p. 126. 12.—Faun. Suec. No. 57.—*Gmel.* Syst. 1. p. 261.—*Will.* p. 41. t. 6.—*Raii*, Syn. p. 17. A. 6.—*Lath.* Ind. Orn. 1. p. 20. 37. —*Meyer*, Tasschenb. Deut. 1. p. 25.—Milvus vulgaris, *Flem.* Br. Anim. p. 51. —Milvus ictinus, *Vigors*, Zool. Journ. 2. p. 340.—Milvus regalis, *Briss.* 1. p. 414. 35. t. 33.—*Ib.* 8vo. p. 118.—Le Milan Royal, *Buff.* Ois. 1. p. 197.—*Ib.* pl. Enl. 422.—*Temm.* Man. d'Orn. 1. p. 59.—Rother Milan, *Bechst.* Tasschenb. Deut. 1. p. 13.—Kite, Br. Zool. 1. No. 53.—*Ib.* fol. t. A. 2.—Arct. Zool. 2. p. 223. H.—*Will.* (Angl.) p. 74.—*Lewin's* Br. Birds, 1. t. 10.—*Lath.* Syn. 1. p. 61. 43.—*Ib.* Supp. p. 17.—*Mont.* Orn. Dict.—*Ib.* Supp.—*Bewick's* Br. Birds, 1. p. 21.—*Haye's* Br. Birds, 1. t. 5.—*Shaw's* Zool. 7. p. 103.—*Pult.* Cat. Dorset. p. 3.—*Walc.* Syn. 1. t. 10.—*Don.* Br. Birds, 2. t. 47.—Falco Austriacus, *Gmel.* Syst. 1. p. 262.—*Lath.* Ind. Orn. 1. t. 39.—Austrian Kite, *Lath.* Syn. 1. p. 62. 45. young bird.—*Selby*, pl. 5. p. 15.

Provincial.—Gled. Puttock. Fork-tail Glead. Greedy Glead.*

This species weighs about two pounds six ounces; length two feet two inches. The bill yellowish, point dusky; cere yellow; irides the same, but of a light colour. Head grey, streaked down the middle of each feather with dusky; back and wing coverts dusky, edged with ferruginous; the under parts more or less ferruginous, streaked with dusky, lightest on the breast; quill feathers dusky black; from the fifth to the tenth dashed with ash-colour, with a few dusky bars, and white at the base and on the inner webs; the rest are dusky, with obscure bars; the tail is of a bright ferruginous colour, the two exterior feathers dusky on the outer webs, the first barred on the inner web the same; the legs are yellow; claws black. The tail of this bird at once distinguishes it from all others of the genus, being much forked; the exterior feathers are twelve inches in length.

The female is somewhat larger, measuring in length two feet four inches; breadth five feet six inches; in colour much resembling the other sex, but in general not so ferruginous.

The Kite chiefly inhabits wooded situations, but frequently changes its abode in the winter, though it never wholly quits this country. It makes a nest early in the spring in a fork of some large tree, composed of sticks, and lined with wool, the inner bark of some tree, hair, and other soft materials, such as bits of cloth or rags. The eggs are generally three in number, rarely four; these are rather larger than those of a hen, of a dirty white, with a few rusty spots at the larger end; sometimes quite plain; their weight is nearly two ounces.

This bird, from its great length of wings and tail, is capable of supporting itself in the air with very little motion, and for a great continuance, but is slow in flight; its depredations therefore are confined to such animals as are found on the ground, young rabbits, hares, and game of all kinds, poultry, and young birds incapable of flying.

It will also destroy young lambs, and feed greedily on carrion; in defect of these it readily eats mice, worms, and insects, and even snakes, the bones of which we have taken from the nest.

It frequently resorts to the environs of towns to feed on offal, and is seen to sweep such matter from the surface of water with great dexterity.

*At a farm-house in the neighbourhood of Hastings, a servant girl was alarmed by an unusual uproar among the poultry; and on looking out, she saw a large bird hovering close to the window over some coops, where several broods of ducks and chickens were kept. She accordingly sallied forth to drive the bird away, but he took so little notice of her that she snatched up a broom, and actually knocked him down and killed him. It proved to be a Kite, which had probably a nest in a neighbouring wood. A circumstance similar to the above relation we witnessed in one of this species, that afforded us no small entertainment. A poor woman was washing some entrails in a stream of water, part of which extended a few yards out of the basket placed in the water: the hungry bird had long been hovering over, viewing with anxious eye so delicious a bait, and took the opportunity of actually pouncing upon and carrying off a part, in spite of all the woman's efforts with hands and tongue, the latter of which might have alarmed a more powerful enemy.

In addition to these remarkable circumstances in the biography of this noble bird, we remember an instance of two males, in the spring of the year, being so intent in combat, that they both fell to the ground, holding firmly by each other's talons, and actually suffered themselves to be killed by a woodman who was close by, and who demolished them both with his bill-hook. In England it is chiefly observed in the more wooded districts, where timber trees abound: is common in the eastern parts, rare in the north, and more rare in the west; for in twelve years' residence in Devonshire, we never observed but one in the southern district of that county.*

Its flight consists generally of large and sweeping circles, performed with an almost motionless wing, directing its course by the tail, which acts as a rudder, whose slightest motion produces effect. It frequently soars to such a height as to be nearly invisible to the naked eye.

KILLOCKDOE.—A name for the Black Cock.

KITTIWAKE (*Larus Rissa*, Linnæus.)

Larus Rissa, *Linn.* Syst. 1. p. 244. 1.—*Gmel.* Syst. 2. p. 598.—*Temm.* Man. d'Orn. 2. p. 774.—Larus tridactylus, *Lath.* Ind. Orn. 8. p. 817. 2.—Le Goeland cendre, *Briss.* 6. t. 14. and 17. p. 2.—Kittiwake, Br. Zool. 2. No. 250. t. 89.—Arct. Zool. 2. p. 456.—*Lath.* Syn. 6. 393. 19.—*Lewin's* Br. Birds, 6. t. 213.—*Pult.* Cat. Dorset. 18.—*Walc.* Syn. 1. t. 108.—*Flem.* Br. Anim. p. 141.—Tarrock, *Penn.* Br. Zool. 2. 251.

Provincial.—Annet.

This species is about fourteen or fifteen inches in length; weight seven or eight ounces. The bill is greenish yellow; irides dusky; inside of the mouth deep orange; head, neck, breast, and all beneath, white; back and wings cinereous grey; the first quill-feather has the exterior web black, and the four or five next are tipped the same; the tail is pure white; legs dusky, with a knob instead of a back toe. It sometimes has a dusky spot behind the ear; but this must be considered as a mark of immaturity, and but another remove from the state in which it has been made a distinct species, under the title of Tarrock; but there no longer exists any doubt of their being the same.

It very rarely appears in the southern parts of England; one instance only has occurred. It is found in the arctic regions; not uncommon in Iceland and Greenland; and has been met with at Kamtschatka.

In the month of March, 1806, three of these birds were thrown up by the tide, on the south coast of Devon, lying close together, as if they had been shot out of a flock, and had floated on shore together. This circumstance makes it clear, that it sometimes is induced to leave the more northern parts, without being compelled by extreme cold, for that winter had been remarkably mild.

They breed in the isles of Bass and Glass, on Troup-head, Flamborough-head, Fowl's-heugh, near Montrose, and other parts of Scotland. In the Isle of May, at the mouth of Forth, the rocks are covered with the dung of this species, being unmolested till the young are fit to take, which, together with solan geese, and some other rock-birds, are eaten by the inhabitants before dinner, as a whet to their appetites. Of this, a curious story is told of a gentleman who went to the Isle of May to eat Kittiwakes, and after eating a dozen, exclaimed that he did not find his appetite improved.

Mr. Boys found these birds at Fowls-heugh near Stonehaven, in vast abundance, where he says they breed in greater numbers perhaps than in any other part of Scotland.

KNOT (*Tringa cinerea*, LINNÆUS.)

Tringa Canutus, *Linn.* Syst. 1. p. 251. 15.—*Gmel.* Syst. 2. p. 679.—*Raii*, Syn. p. 108. A. 5.—*Will.* p. 224. t. 56.—*Lath.* Ind. Orn. 2. p. 738. 44.—*Briss.* 5. p. 258. 21.—*Ib.* 8vo. 2. p. 276.—*Calidris, *Briss.* 5. p. 226. 14.—*Cuv.* Reg. Anim. 1. p. 489.—Tringa cinerea et grisea, *Gmel.* Syst. 1. p. 673. sp. 41. 15.—*Lath.* Ind. Orn. 2. p. 733. 23. 44.—*Wils.* Am. Orn. 7. pl. 57. fig. 2.—Tringa islandica, *Gmel.* 1. p. 682. 24.—Tringa rufa, *Wils.* Am. Orn. 7. p. 43. pl. 57. fig. 5.—Tringa nævia et australis, *Gmel.* 1. p. 681 and 679. 40. 39.—Dusky, Speckled, and Southern Sandpiper, *Lath.* Syn. 5. p. 18. 19. 35.—Ash-coloured Sandpiper, *Penn.* Br. Zool. 2. p. 194.—Aberdeen Sandpiper, *Ib.* 2. p. 462.—Red Sandpiper, *Ib.* 2. p. 469. (but not Red Sandpiper of his Arct. Zool. 2. p. 476. 392. & *Lath.* Syn. 5. p. 186.)—Knot, Br. Zool. 2. No. 193.—*Ib.* fol. 123. t. E. 2. f. 1.—Arct. Zool. 2. No. 384.—*Will.* (Angl.) p. 302.—*Edw.* t. 276.—*Lath.* Syn. 5. p. 187. 36.—*Lewin's* Br. Birds, 5. t. 178.—*Flem.* Br. Anim. p. 109.*

The weight of this species of sandpiper, is four ounces and a half; length about nine inches; bill dusky brown, an inch and a quarter long; irides hazel; the top of the head, neck, back, and wings, ash-colour; from the bill to the eye a dusky streak; over the eye a white one; coverts of the wings edged with white, the lower order deeply tipped and margined, forming a bar across the wing; greater quills dusky, with white shafts; the rump and tail coverts white and dusky, transversely marked in curved lines; the under parts, from throat to vent, white; the neck and breast streaked with brown; the sides and thighs crossed with dusky lines; tail ash-colour, the outer feather whitish; legs bluish ash-colour.

In some the forehead, chin, and lower part of the neck is brown, inclining to ash-colour; back and scapulars deep brown, edged with ash-colour. These and other little variations in plumage are common in most of this genus of birds.

This species is chiefly confined to the fens of Lincolnshire, the Isle of Ely, and a few other places. In the first place they are taken in great numbers on the coast by means of nets, and when fattened are esteemed equal to the ruffs. It should seem they first appear in the month of August, as from that time to November is the season of catching them; but they are said generally to disappear with the first frost.

We have received from the coasts of Devonshire and Cornwall, in August, a species of sandpiper in every respect like this described, except that the feathers on the back and wing coverts are margined with a small semicircular line of black; the extreme edges light cinereous-brown.

Mr. Pennant and Dr. Latham both describe their ash-coloured sandpiper to have the back and wing coverts varied with concentric semicircles of black ash-colour and white, which brings it near to the bird above-mentioned. There is no genus of birds more obscure than the sandpipers; and as few of them remain with us the whole year, it will in all probability be no inconsiderable time before we shall be able to clear up the many doubts respecting them. We cannot, however, help expressing our opinion, that the species are unnecessarily multiplied.

The Knot is said to be found in various parts of Europe; has been met with also in Asia and America. It would seem that they breed with us from Mr. Lewis's account, who says they appear with the ruffs, and has given a figure of its egg, which is pale ferruginous, marked with spots and streaks of rust-colour and cinereous; in size rather inferior to that of the lapwings.

Land-rail.

LAND-RAIL (*Ortygometra crex*, Fleming.)

Rallus Crex, *Linn.* Syst. 1. p. 261. 1.—*Gmel.* Syst. 2. p. 711.—Gallinula Crex, *Lath.* Ind. Orn. 2. p. 766. 1.—Ortygometra, *Raii*, Syn. p. 58. A. 8.—*Will.* p. 122. t. 29.—*Briss.* 5. p. 159. 3.—*Ib.* 8vo. 2. p. 253.—Porphyrio rufescens, *Briss.* 5. p. 533. 5.—*Ib.* 8vo. 2. p. 353.—*Will.* p. 236.—Rale de Genet, ou Roi des Cailles, *Buff.* Ois. 8. p. 146. t. 12.—Land-Hen, Daker-Hen, or Rail, *Will.* (Angl.) p. 170. t. 29.—*Ib.* p. 316.—*Albin*, 1. t. 32.—Crake Gallinule, Br. Zool. 2. No. 216. t. 75.—*Ib.* fol. 131.—Arct. Zool. 2. No. 412.—*Lath.* Syn. 5. p. 250. 1.—*Walc.* Syn. 2. t. 170.—*Lewin's* Br. Birds, 5. t. 190.—*Pult.* Cat. Dorset. p. 15.—*Don.* Br. Birds, 5. t. 116.

Provincial.—Corn-Crake, Crek, or Cracker. Bean-Crake.

The weight of this species is seven or eight ounces; length nine inches and a half. The bill is of a light brown-colour; irides hazel. The whole upper parts of the bird are of a rufous-brown; the top of the head, back, and scapulars, marked with dusky black; the coverts of the wings and tail are of a fine bay; under parts pale yellowish brown, approaching to white on the belly; the sides barred with dark and light rufous-brown; the sides of the head, over the eyes, inclining to ash-colour; legs cinereous brown.

This bird has been supposed by some to be the water-rail in its summer plumage; but this is too obvious an error to dwell on; their characters and mode of life are entirely different. It never takes the water, but resides in high grass or corn, where it breeds, making a nest of a few dry plants, and lays twelve or fourteen eggs, some say as

many as twenty. These are not much less than those of a partridge, but of a longer shape, of a dull white, marked with rust-coloured spots.

It is a migrative species, appearing with us about the latter end of April, and departing in October. On its first appearance, and till the female begins to sit, the male is frequently heard to make a singular noise, much resembling that of a comb when the finger is drawn along the teeth, and which has been used as a decoy.

It is much sought after for the delicacy of its flesh, but it is a difficult bird to spring, depending on its legs for safety more than its wings. In autumn, when the corn and grass are cut, it takes to the thickets and brakes, and is with difficulty roused to take flight. It flies slow, and with its legs hanging down.

It is most plentiful in the northern parts of the kingdom, and in Ireland. On their first coming they are very lean, but before their departure become excessively fat. It is found in the Hebrides and Orkneys; inhabits Germany, France, and Italy, and as far north as Norway.

* I have never heard it in the vicinity of London, nor in Wiltshire, or Normandy, though it is said to be plentiful in the west of England.*

Their food is chiefly worms, snails, and insects, in defect of which, seeds and various vegetables.

LAND CURLEW.—A name for the Stone Curlew.

LANIADÆ (Vigors).—* Shrikes; a group of perching birds (*Insessores*, Illiger.)*

LANIUS (Linnæus.)—* Shrike, a genus thus characterised. Bill of middle size, strong, much compressed; the upper mandible strongly curved towards the point, where it forms a hook; the base without a cere, but furnished with coarse hairs directed forward; nostrils at the sides of the base, almost round, half shut by a vaulted membrane, often in part concealed by the hairs; feet with the shank longer than the middle toe; three toes before and one behind, quite divided; wings, the first quill of middle length, the second a little shorter than the third and fourth, which are the longest in the wing. *

LANNER (*Falco Lanarius*, Linnæus.)

Falco lanarius, *Gmel.* Syst. 1. p. 276.—*Will.* 48.—*Raii*, Syn. 15. p. 13.—Le Lanier, *Buff.* Ois. 1. p. 243.—*Temm.* Man. d'Orn. 1. p. 20.—*Flem.* Br. Anim. p. 49.—Lanner, Br. Zool. 1. No. 51. t. 23.—Arct. Zool. 2. p. 125. K.—*Will.* (Angl.) p. 82.—*Lewin's* Br. Birds, 1. t. 17.—*Lath.* Syn. 1. p. 86. 72.—*Ib.* Supp. p. 21.—*Walc.* Syn. 1. t. 16.

This species of falcon is rather less than the buzzard. Bill bluish; cere greenish-blue; irides yellow; the crown of the head brown, mixed with yellowish white; the rest of the head, upper part of the

neck, and the body above, are brown, the feathers edged with a paler colour; over the eye a broad whitish line; beneath the eye a black stroke pointing downwards; the throat, breast, and belly, whitish, tinged with dull yellow on the two last parts, which, with the thighs and vent, are marked with brown strokes; quills and tail dusky, with oval ferruginous spots on the inner webs; legs bluish, short, and strong; claws black.

This is a very bold bird, and was formerly used in falconry. It is rarely met with in England, but is said to breed in Ireland. Mr. Pennant speaks of one being caught in a decoy in Lincolnshire, pursuing some wild ducks under the nets.

The Lanner is found in many parts of Europe; inhabits Iceland and the Ferroe Isles, Denmark and Sweden; it is frequent in the Tartarian deserts, and is said to build among the low trees and shrubs, in the deserts about Astrachan. * This bird is given by Temminck and Fleming; but as no mention is made of it by Selby or Vigors, it should seem they doubt its existence.*

LAPWING (*Vanellus cristatus*, Meyer.)

Tringa Vanellus, *Linn.* Syst. 1. p. 248. 2.—*Gmel.* Syst. 2. p. 670.—*Raii*, Syn. p. 110. A. 1.—*Will.* p. 228. t. 57.—*Lath.* Ind. Orn. 2. p. 726. 2.—*Briss.* 5. p. 94. 1. t. 8. f. 1.—*Ib.* 8vo. 2. p. 236.—Le Vanneau, *Buff.* Ois. 8. p. 48. t. 4.—*Temm.* Man. d'Orn. 2. p. 559.—Lapwing, or Bastard Plover, Br. Zool. 2. No. 190.—*Ib.* fol. 122. t. C*. f. 1.—Arct. Zool. 2. p. 480. D.—*Albin*, 1. t. 74.—*Will.* (Angl.) p. 307. t. 57.—*Haye's* Br. Birds, t. 11.—*Lath.* Syn. 5. p. 161. 2.—*Lewin's* Br. Birds, 5. t. 167.—*Pult.* Cat. Dorset. p. 15.—*Walc.* Syn. 2. t. 145.—*Don.* Br. Birds, 2. t. 25.—*Flem.* Br. Anim. p. 111.

Provincial.—Pewit. Green Plover. Peeseweep.

This species weighs between seven and eight ounces; bill black, an inch long; irides hazel; the upper part of the head is black, glossed with green; on the back part the feathers are elongated into a crest, some of which are above three inches in length and very narrow, reflecting a little at the ends; the sides of the neck and round the eye is white; beneath the eye is a black streak; the fore part of the neck and upper part of the breast black; the hind part brown, intermixed with white; back and coverts of the wings brownish green, glossed with purple blue; quills black, with a white spot on the tips of the first four; the secondaries are white half way from their base; breast and belly white; vent and upper tail coverts pale ferruginous; the base half of the tail white; the ends black; legs dull orange.

The female is less brilliant in colour, and the crest much shorter.

This bird is common in most parts of the kingdom; it breeds early in the spring upon heaths and upland situations, as well as in fens and moist fields, and not unfrequently in old fallow land.

It lays invariably four eggs on the bare ground; these are of an olivaceous brown, blotched with black, and, what is remarkable, the eggs are always placed in a quadrangular manner, touching each other at the smaller ends, by which they occupy the least possible space. This is common to all the sandpiper, plover, and snipe genus hitherto noticed, the eggs of which are commonly four, much tapering to the smaller end.

The young make use of their legs as soon as they are hatched, but are not capable of flying till nearly full grown; they are led by the parent birds in search of food, but are not fed by them. At this time the old birds use every art to entice an intruder from their young; they will strike at a dog, and then flutter along the ground as if wounded, to entice him from the place where the young are concealed, and are very clamorous.

In the autumn these birds congregate into large flocks, and frequent marshy places. At this time they are esteemed not unsavoury food; the eggs are also considered as a delicacy, and are frequently brought to the markets of London for sale, under the name of plover's eggs. Its principal food is worms, slugs, and various insects; when partly domesticated and kept in gardens, it will eat bread or meat. It runs fast, and has a singular motion with the head, frequently putting its bill to the ground without picking any thing up.

* It is stated by Dr. Anderson, in his Bee, that the Lapwing seems to be aware of the instinctive fear in the earthworm, (*Lumbricus gigas*, Dugés,) of subterranean concussions and noises; and when it cannot find sufficiency of live prey above ground, it pats with its feet till the earthworms, mistaking it for an advancing mole, come forth to be feasted upon.[1]

An interesting anecdote is related by M. Antoine, of a Lapwing, which a clergyman kept in his garden. It lived chiefly upon insects, but as the winter drew on these failed, and necessity compelled the poor bird to approach the house, from which it had previously remained at a wary distance; and a servant, hearing its feeble cry, as if it were asking charity, opened for it the door of the back kitchen. It did not venture far at first, but it became daily more familiar and emboldened, as the cold increased, till at length it actually entered the kitchen, though already occupied by a dog and a cat. By degrees it at length came to so good an understanding with these animals, that it entered regularly at nightfall, and established itself at the chimney corner, where it remained snugly beside them for the night: but as soon as the warmth of spring

[1] J. Rennie on Mistakes of Instinct, Mag. of Nat. Hist. i. p. 374.

returned, it preferred roosting in the garden, though it resumed its place at the chimney corner the ensuing winter. Instead of being afraid of its two old acquaintances, the dog and the cat, it now treated them as inferiors, and arrogated to itself the place which it had previously obtained by humble solicitation. This interesting pet was at last choked by a bone which it had incautiously swallowed.*[1]

Its note has given rise to one of its common names, as it resembles the word *pe-wit;* the name of Lapwing has also been given from the constant flapping of its wings in flight.

LARIDÆ (Leach.)—Gulls, a family of swimming birds (*Natatores*, Illiger.)

LARKS (*Alaudina*, Vigors.)—* A group of the Finch family (*Fringillidæ*, Vigors.)*

LARUS (Auctores)—* Gull, a genus thus characterised. Bill long or middle sized, strong, hard, compressed, cutting, curved towards the point, the under mandible forming a saliant angle. Nostrils at the sides, in the middle of the bill, slit lengthwise, straight, pierced from part to part. Legs slender, naked to the knee; shank long; three toes before, wholly webbed; the hind toe free, short, and jointed high upon the shank. Tail with the feathers of equal length; wings long, the first quill almost of equal length with the second.*

LAUGHING GOOSE (*Anser erythropus*, Fleming.)

* Anas albifrons, *Gmel.* Syst. 2. p. 509.—*Lath.* Ind. Orn. 2. p. 842. 27.—*Temm.* Man. d'Orn. 2. p. 821.—Anser erythropus, *Flem.* Br. Anim. 8. p. 127.—Anas erythropus, Faun. Suec. No. 116. (fem.)—Anser septentrionalis sylvester, *Briss.* 6. p. 269. 3.—*Ib.* 8vo. 2. p. 433.—Anas casarca, S. G. *Gmel.* Reis. 2. p. 177.—L'Oie rieuse, *Buff.* Ois. 9. p. 81.—Laughing Goose, *Edw.* t. 153.—White-fronted Goose, Br. Zool. 2. No. 268. t. 94. 1.—*Ib.* fol. 150.—Arct. Zool. 2. No. 476.—*Lath.* Syn. 6. p. 463. 22.—*Lewin's* Br. Birds, 7. t. 240.—*Pult.* Cat. Dorset. p. 20.—*Walc.* Syn. 1. t. 64.—*Don.* Br. Birds, 5. t. 102.—*Mont.* Orn. Dict.

Provincial.—Bald Goose.*

This is rather less than the common Goose; is said to weigh sometimes as much as seven pounds. The bird now before us is of the general size, and was only four pounds, four ounces; but it should be remembered, that great allowance is to be made in the weight of birds, as it depends on their condition, and whether the stomach is full or empty. The length twenty-nine inches. The bill is flesh-coloured, with an orange spot on the top, at the base between the nostrils; the nail white; irides dusky. The feathers round the base of the bill are white, running some way on the forehead, bounded by dusky brown; the head, neck, and upper parts, dark brown; the upper part of the

[1] Antoine, Animaux Célèbres, i. p. 70.

back, scapulars, and wing coverts, margined with grey; breast, belly, and sides, blotched irregularly with large black and white patches; vent, upper and under tail coverts, white; quills dusky; the primores cinereous on the outer webs; tail dusky black, more or less margined with white; the outer ones almost wholly white; legs and feet orange.

We have found this species in general more plentiful than the Bean Goose.

It visits the fenny parts of this country in small flocks in winter; is killed on the coast, as well as on our rivers, in severe weather; and not uncommonly brought to market and sold for the common Wild Goose.

It retires northward to breed about the month of March. Inhabits the north of Europe and Asia in summer; is frequent in Siberia and part of Russia; common at Hudson's Bay.

LAUGHING GULL (*Larus ridibundus*, Leisler.)—[See Hooded Gull.]

* Larus cinerarius, *Gmel.* Syst. 1. 597. 4.—Larus procellosus, *Bechst.* Naturg. Deut. 4. p. 647.—Red-legged Gull, *Lath.* Syn. 6. p. 381. 10. and var.—*Penn.* Arct. Zool. 2. p. 533.—Brown Headed Gull, *Lath.* Syn. 6. 383.—Sterna obscura, Brown Tern, *Lath.* Ind. Orn. 2. p. 810. 25. and Syn. 6. p. 368.—Brown Gull, *Lath.* Syn. Supp. 2. 311. 1.—Larus erythropus, *Gmel.* 1. p. 597. 15.

YOUNG.

Larus ridibundus, *Gmel.* 1. 601. 9.—*Lath.* Ind. Orn. 2. p. 811. 2.—Black-headed Gull, *Penn.* Br. Zool. L. 5.—*Lath.* Syn. 6. p. 380.—*Temm.* Man. d'Orn. 2. p. 780.—*Mont.* Linn. Trans. 7. p. 284.—*Flem.* Br. Anim. p. 141.

Provincial.—Pewit. Blackcap. Sea-Crow. Rickmire. Hooded Maw. Red Legs.*

Length fifteen, breadth thirty-seven inches; weight ten ounces. Bill and feet rich vermilion. Irides hazel; round the eyes a few white feathers. Lower part of the neck, tail, and belly white; the back and wings grey; primores white, the first with the outer margin black; the second tipped with black, and marked with a black spot on the inner web. In winter the head is white, with a black patch on the ear, and another in front of the eyes; under the wing blackish grey. Female similar. Nest, according to Wilson, in meadows and islands in fresh water lakes. Eggs three, olive, with dusky blotches. It leaves Scotland in winter, but is a permanent resident in England.

These birds appear to be subject to great variety either from age or from change of season, and in those changes they have been described as different species. The Red-legged Gull of authors is only this bird before it is arrived at maturity; and there seems no doubt but the old birds lose the black on the head in the winter, and do not assume it again till the breeding season; but there is generally a little black about the ears; the bill and legs also lose their bright colour.

We have seen hundreds of these birds together in the winter, but

have never seen one with a black head at that season. They appear in great abundance in the autumn, on the coast of Caermarthen and Glamorganshire, particularly about the mouths of rivers. At that time the head is white, in some mottled with brown, with a dusky spot behind the ear; the back and wing coverts in young birds, are mottled with brown and white; the tail crossed with a dusky bar at the end; the bill and legs scarcely tinged with red. Towards spring the back begins to assume the ash-colour; then the wing coverts, and the bill and legs, obtain their proper colour; the black behind the ears spreads and meets behind, and on lifting up the feathers of the crown about the month of March, the stubs of the black feathers are to be observed. At this time also some few black feathers appear on the throat; but the perfect black head is not assumed during their stay in those parts. In Devonshire we have seen them complete in feather later in the spring, but have never observed the same appearance in winter.

The Laughing Gull is said to breed in Lincolnshire in the fens, and in other parts of England, upon the borders of rivers.

Dr. Plott assures us, in his History of Staffordshire, that in his time these birds annually visited a pool in Staffordshire, in the parish of Norbury, which pool was called Pewit Pool, on account of these birds breeding on the islands. He also assures us that they would not breed on any other land than that of the proprietor of the before-mentioned place; and that on the death of the owner, they deserted the pool for three years, but only retired to another estate belonging to the next heir.

In these more enlightened times more substantial reasons might be assigned for their leaving their usual breeding place. The Doctor further states, that they appeared about the latter end of March or beginning of April, and retired again before winter. The young birds were accounted good eating, and were taken by driving them into nets before they could fly; that fifty dozen were taken at a driving, and that five shillings per dozen was the usual price.

The young were kept alive and fattened on offal. It is also added, that three drivings were generally made in a season; and that anciently, as many were taken as produced a profit of fifty or sixty pounds.

No author mentions their being seen in winter, having at that time been made a distinct species under various denominations, particularly that of Red-legged Gull, the synonimes of which we have added to this species.

It makes a nest on the ground with rushes, dead grass, and such like materials, and lays three eggs, of an olivaceous brown, marked with

rusty brown blotches. It is found in Russia and Siberia, and inhabits North America.

* We have now and then observed this species on the coast of Devon, with the full dark coloured plumage on the head, but never in the winter; and are assured that they continue to breed in great numbers in Shropshire. It is very remarkable, that a bird bearing such strong marks as the Laughing Gull, in all its changes, from the nestling to the adult plumage, should have been multiplied into so many species, as the superior whiteness of many of the prime quill feathers, especially on the outer webs, and greater coverts, immediately over them, are very conspicuous when the wings are extended, an obvious distinguishing mark from all others, even when flying.

In order to elucidate this subject more clearly, we shall here subjoin a description of the several changes, incident to the varieties of the bird, from the time it first appears on our shores, after having quitted its place of nidification; tracing it through the various changes still it arrives at full maturity, which we are inclined to believe in this, and some other of the smaller species of the genus Larus, is effected in one year; but which in the larger species takes three or four years to accomplish.

In the first plumage, the feathers are more or less mottled with brown and white, which in a short time after leaving the nest, are displaced by those which are wholly white underneath; the head becomes white, with an obscure spot behind the ear; but the back, scapulars, and coverts of the wings, continue mottled some time longer. In this state, therefore, it comes nearest to the description of Ray's Brown Tern, which had the whole under side white; the upper brown; the wings partly brown and partly ash-colour; but then he expressly says the head is black; a circumstance which never occurs in this bird while it has any brown feathers remaining on its back, and therefore cannot be referred to.

The second material change brings it to the Lathamian Brown Gull, of the Second Supplement to the General Synopsis, to which we refer for a comparative description; and which so exactly accords with the following, taken from a recent specimen killed on the 14th of February, on purpose to send to Dr. Latham, that there can be no doubt of their being the same.

Length thirteen inches and a half; breadth thirty-seven; weight eight ounces and three-quarters; the bill one inch and a quarter in length to the feathers on the forehead; the base red orange, tip dusky black; irides dusky; a black spot at the anterior corner of the eye; another behind the ear; crown of the head mottled dusky and white;

forehead and all the under parts white; back, scapulars, greater coverts of the secondary quills, and some of the upper series of the smaller ones near the shoulder grey; several rows of the middle series of the coverts brown, edged with dull white; the two first prime quills are white, margined on both webs with black; in the third, the white increases on the outer margin, and the black at the tip; and at the fifth feather the white part becomes pale grey, and the dark part increases on the inner web, and becomes more dusky; secondary quills dusky near their ends, margined with grey; tertials brown; the feathers of the spurious wing are dusky, slightly tipped with white; the ridge of the wing below that, and the three or four larger coverts adjoining, are wholly white; the rest of the greater coverts impending the prime quills more or less brown; the outer feather of the tail quite white; the next with two dusky brown spots at the tip; the rest white, tipped with the same for rather more than half an inch, the ends slightly edged with dirty white; legs and feet dull orange red. The next change brings it to the Brown-headed Gull (Lath. Syn. vi. p. 383. *Larus erythropus*, Gmel. Syst. ii. p. 597. *Larus ridibundus*, Ind. Orn. ii. p. 812.) In this there is no material difference from the last, except that the legs have attained their perfect colour, (red,) and the head assumes more of the dusky, or brown feathers, than usual; while the middle coverts of the wings retain the mottled brown, and the tail the dusky bar at the end. This, though we consider it as an irregular change, may be admitted as an unusual variation in the gradations commonly observed; for scarcely an instance is to be found, but where the brown scapulars, and middle series of the wing coverts, are changed for those of grey, and the tail becomes wholly white before the head is much covered with dusky feathers, or the legs become more than reddish.

The fourth change is that which has been generally known by the title of the Red-legged Gull (Lath. Syn. vi. p. 381. *Larus cinerarius*, Gmel. Syst. ii. p. 597. *Larus ridibundus*, Ind. Orn. ii. p. 812, var. B.) In this change, which brings it so near to maturity, we find a very material difference; for not only the scapulars and coverts of the wings are become grey, but the bar at the end of the tail is lost, and that part assumes a pure white; the legs and bill also become of a fine purplish red; these last, however, grow darker as the spring advances, and the black increases on the head, a circumstance peculiar to the breeding season, when that colour spreads over the whole head, taking in the throat; and in this, the most perfect or adult state, it is the Laughing Gull (*Larus ridibundus.*) It should, however, be observed,

that this most perfect state of plumage disappears in the autumnal moulting, and the bird re-appears in that which characterised it as the Red-legged Gull. These mutations take place every summer and winter, and in the former all have the black head, and in the latter season none.*

LARY.—A name for the Willock.

LAVROCK.—A name for the Skylark.

LESSER BLACK-BACKED GULL.—A name for the Herring Gull.

LESSER BUTCHER BIRD.—A name for the Bearded Tit.

LESSER CRESTED LARK.—A name for the Wood Lark.

LESSER GUILLEMOT.—The female and young of the Willock.

LESSER IMBER DIVER.—Described by Bewick as a new species of Diver. To us it appears to be the young or female Loon.

LESSER PETTYCHAPS.—An inappropriate name for the Chiff-chaff.

LESSER REDPOLE.—Names for the Redpole and the Rose Linnet.

LESSER SPOTTED WOODPECKER.—A name for the Crank Bird.

LESSER TERN.—A name for the Richel Bird.

LESSER WATER SPARROW.—A name for the Sedge Bird.

LESSER WHITE HERON.—The young of the Little Egret.

LESSER WHITETHROAT.—A name which has improperly been applied to the Babillard.

LINNET (*Linaria linota*, CUVIER.)

*Fringilla cannabina, *Linn.* Syst. 1. p. 322. sp. 28.—Gros Bec Linotte, *Temm.* Man. d'Orn. 1. p. 364.—Greater Redpole, or Brown Linnet, *Mont.* Orn. Dict. —The Linnet, *Low's* Faun. Orcad. p. 63.—Greater Redpole Finch, *Shaw's* Zool. 9. p. 516.

YOUNG.

Fringilla Linota, *Gmel.* Syst. 1. p. 916.—*Lath.* Ind. Orn. 1. p. 457. sp. 81.—Linaria, *Raii*, Syn. p. 80. A. 1.—*Will.* p. 190.—*Ib.* (Angl.) 258.—*Briss.* 3. p. 131. 29.—La Linotte ordinaire, *Buff.* Ois. 4. p. 58. t. 1.—*Ib.* pl. Enl. 151. f. 1. Common Linnet, Br. Zool. No. 130.—*Lewin's* Br. Birds, 2. t. 83.—*Lath.* Syn. 3. p. 402. 73.—*Pult.* Cat. Dorset. p. 12.—*Walc.* Syn. t. 221.—Grey Linnet, *Bewick's* Br. Birds, 1. p. 171

ADULT.

Fringilla cannabina, *Gmel.* Syst. 1. p. 916. sp. 28.—*Lath.* Ind. Orn. 1. p. 458. sp. 82.—Linaria rubra major, *Briss.* 3. p. 135. 30.—*Raii*, Syn. p. 91. A. 2.—*Will.* p. 191. t. 46.—Le Grand Linotte des Vignes, *Buff.* Ois. 4. p. 58.—*Ib.* pl. Enl. 485. f. 2. old male under the title of Petite Linotte des Vignes.—Bluthanfling, *Bechst.* Naturg. Deut. 3. p. 141.—*Ib.* Tasschenb. Deut. p. 121.—*Meyer*, Tasschenb. Deut. 1. p. 163.—*Ib.* Vög. Deut. 1. t. f. 1. and 2.—*Frisch*, Vög. t. 9. f. 1. and 2.—Greater Redpole, or Red-headed Linnet, Br. Zool. 1. No. 131. t. 54.—Arct. Zool. 2. No. 161.—*Will.* (Angl.) 260.—*Lewin's* Br. Birds, 2. t. 84.—*Lath.* Syn. 3. p. 304.—*Ib.* Supp. p. 167.—*Walc.* Syn. 2. t. 222.—*Pult.* Cat. Dorset. p. 12.—*Bewick's* Br. Birds, 1. t. p. 173.—*Ib.* Supp. p. t. 22.—*Flem.* Br. Anim. p. 84.—*Selby*, pl. 55. figs. 3. and 4. p. 274.

Provincial.—Lintwhite. Greater Redpole. Grey Linnet. Lintie.*

This species is subject to much variety, with respect to the red markings which, at certain ages and seasons, are found upon the head and breast, and this has occasioned it to be multiplied into two distinct species by various ornithologists, all of whom seem to agree that the general colour of both are alike, but assert that the greater redpole has none of this colour upon the breast. On comparing the various authors who have given this as a distinct species, we find they all make it nearly the same as the redpole, but not quite so rufous on the upper parts. The principal distinction seems to be in the breast being of a fine crimson colour, and none of that colour on the head.

Linnæus does not appear to have considered these birds as distinct, and we have no doubt he was perfectly right; for they are to be met with in all gradations, with respect to the red marking on the head and breast, sometimes on one of those parts only, at other times on neither: this depends wholly on age and season. From the vast number we have killed at all seasons, in which the greatest variety of those markings were observed, we do not hesitate to pronounce them the same species.

It is probable, however, that the full plumage of this bird does not take place till the second or third year, for we have seen them in all gradations in the breeding season; some of which had scarcely any tinge on the head or breast, and yet by dissection have proved males. The young, for some time after they leave their nest, resemble the female, and if taken into confinement in that state, rarely, if ever, throw out the red spots, or become so rufous upon the back; and even those which are taken in full maturity, most frequently lose all the red feathers in the first moulting, which never return. In these different stages they are commonly known by the name of Brown Linnet.

The male in full plumage has the bill bluish; irides hazel; the head light brown; the feathers on the crown darkest in their middle; sides of the neck inclining to ash-colour; the forehead rosy red; the back, scapulars, and coverts of the wings, fine deep rufous-brown, lightest on the rump, and palest on the margin of each feather; the breast is brown, with more or less spots like that on the head; belly light rufous-brown; vent almost white; quill-feathers dusky black, with more or less white on the exterior and interior webs, which forms a conspicuous bar of that colour on the wing; the tail is forked, the feathers, like those of the quills, black, margined with white, which colour predominates on the inner webs; coverts of the tail black, edged with grey; legs brown. The weight of the male about five drams,

that of the other sex rather less. The plumage of the female is more dusky brown; the coverts of the wings rufous-brown; sides of the throat plain dirty white, the middle part streaked; breast and sides pale brown, with dusky streaks; quills and tail like the other sex, but the former not so deeply margined with white, and of course no perceptible bar on the wing.

These birds fly in flocks during winter, at which time the males have little or none of the red markings which, in the return of spring, they put forth.

* Selby informs us, that he repeatedly verified the fact of its never acquiring under confinement, those brilliant tints which distinguish it at a particular period of the year when in a state of liberty. "I will adduce," says he, "an instance strikingly to the point. For some particular purpose of observation, a Linnet was shot towards the close of summer, when the plumage shewed its most perfect nuptial tint, and happening to be only winged, it was put into a cage. It soon became familiarised to its situation, and still continues so. About the usual time in the autumn of that year, it moulted, and acquired the winter dress of the common Linnet, which it has retained ever since, without displaying at the accustomed season, any of the brilliant red that adorned it in the wild state." In this he is supported by the authority of Bechstein, who says that young birds bred in the cage never acquire this crimson-colour on the head and breast, and that old birds at the first moulting after their captivity, lose their beautiful colours, which never return. This Linnet is very common throughout Britain, extending as far as the Orkneys, where it is abundant. During the summer it resorts to waste land and commons, in the upper parts of the country, where it breeds. Furzy commons seem to be the favorite resorts of these birds during that season; the bushy furze being admirably adapted to conceal the nest from the prying eye, and sometimes a quickset or gooseberry-bush answers the purpose. The nest is composed of moss woven with wool, and lined with wool and hair, very neatly put together; the eggs are four in number, of a bluish white, with a few purplish specks and short lines; their weight from twenty-four to thirty grains. In the month of April they pair, and commence building their nest, and in May the first broods are hatched; but if the nest should be destroyed, they will build another as late as the month of August, appearing dissatisfied until the object of their visit is accomplished. During the time of nidification, and until the young are hatched, the song of the Linnet, although short, possesses much sweetness. "At once brilliant and soft," says Bechstein, the song of "the Linnet consists of many irregular

notes, tastefully put together in a clear and sonorous tone, which continues during the whole year, except at the moulting season. Besides its own natural note, it will soon acquire the notes of other birds, particularly the nightingale; and may be taught in a very short time to imitate any of our tunes, if they are whistled to it." He also seems to be of opinion, that in addition to the two supposed species, the synonimes of the Twite (*F. Montium*) ought to be joined to those of our common Linnet. "Convinced myself," says he, "from the observation of many years, I hope to shew by my description, that our common Linnet, the greater Redpole, and, according to all appearance, the Mountain Linnet, are one and the same species." After describing the mature bird, he says, "a male of three years old is distinguished in the spring, by the name of the Red Linnet (*Linotte Sanguine;*) the forehead is then of a bright blood-red colour; the remainder of the head being of a reddish ash colour; the top a little speckled with black. After the moulting in autumn, we no longer see the red upon the forehead, that colour being hid by the white feathers; the coverts of the breast then assume a deep brown-colour, and blackish spots begin to appear; the interior feathers on the breast, which were formerly red, are now of a brownish grey, mixed with red. In this plumage it is known by the name of the Grey Linnet.

"After the time of its second moulting, if we part the reddish grey feathers on the forehead and breast, we find that they are still red at the tips, and only hid by the yellowish white borders of the new feathers."

In this state it is the Rock or Mountain Linnet, (*Linotte de Roche.*) "I have even," he adds, "had these birds with the forehead and breast of a rich reddish yellow." To this variety bird-catchers give the name of the Yellow Linnet. These varieties of plumage do not occur with the female, which is besides considerably smaller.* In addition to these, there are many changes produced by season and age; for instance, as the bird increases in age, the red-colour on the head increases also.

LITTLE AWK.—A name for the Rotch.

LITTLE BITTERN.—A name for the Boonk.

LITTLE BUSTARD (*Cursores Otis.*)

Otis tetrax, *Linn.* Syst. 1. p. 264. 3.—Faun Suec. No. 196.—*Gmel.* Syst. 1. p. 723. sp. 3.—*Lath.* Ind. Orn. 2. p. 659. sp. 3.—*Otis minor, *Raii,* Syn. p. 59. 2.—*Will.* p. 129. t. 32.—*Briss.* 2. p. 24. 2. t. 2. f. 1. 2.—Le Petite Outarde ou Cannepetière, *Buff.* Ois. 2. p. 40.—*Ib.* pl. Enl. 25. old male, and pl. 10. female.—Outarde Cannepetière, *Temm.* Man. d'Orn. 2. p. 507.—Der Kleine Trappe, *Bechst.* Naturg. Deut. 3. p. 1446. t. 45. female.—*Meyer,* Tasschenb. Deut. 1. p. 309.—Little Bustard, Br. Zool. 1. No. 99.—Arct. Zool. 2. p. 321. A.—*Lath.* Syn. 4. p. 799. 2.—*Lewin's* Br. Birds, 4. t. 40.—*Walc.* Syn. 2. t. 174.—*Mont.* Orn. Dict.—*Ib.* Supp.—*Bewick's* Br. Birds, 1. t. p. 330. female.

The weight is twenty-five ounces; length sixteen inches and a half; breadth thirty-five. Bill dusky brown; irides pale crimson; behind the eye a space bare of feathers; upper part of the head, hind neck, and whole upper parts, including the smaller coverts of the wings, are a mixture of pale ferruginous and black, disposed on each feather in lines and bars, in a most elegant manner; the row of coverts immediately impending the tail, white, with transverse black bars, the tips white; on the fore part of the neck the markings are more distinct, and the ferruginous occupies the middle of each feather; but towards the breast the markings change, and the black becomes undulated in distinct transverse lines on that part, continuing the same down the sides; the cheeks streaked with dusky; the throat is plain yellowish white; belly, vent, and thighs, white; sides of the under tail coverts barred with black; the four first quill-feathers dusky half way from their tips, their base white; the six next white, except a large black spot at their tips, and a very small black mark on their shafts; the eleven following, white, with two or three black bars on each, most on the outer webs, and a small spot of the same at their tips; the tertials next to the body are similar in colour and markings, to the back and scapulars, and nearly as long as the prime quills; the coverts of the secondary quills, white, barred with black; the tail consists of eighteen white feathers, closely spotted with irregular small markings of black, with three conspicuous bars of the same; the light part of the four middle feathers inclines to ferruginous; at the base of all the white predominates; legs yellowish brown and scaly; the toes dusky brown, connected together at the base by a small membrane; claws of the same colour. Along the back of the neck is a considerable space bare of feathers, but covered with down; on the breast, the down at the base of the feathers is of a pale rose-colour.

This appeared to be a young bird, yet the ovaries were sufficiently conspicuous. There was nothing remarkable in the windpipe, (*trachea*,) and the stomach had nothing of the nature of that of granivorous birds, but was of a most unusual size, distended by various herbs, reaching from the gullet to the vent. Nothing but vegetables were observed, and of that a great variety, but particularly some species of trefoil. From this conformation of the stomach, we may conclude the bird to be wholly graminivorous; and in all probability the Great Bustard is precisely of the same nature.

"Two individuals," says Selby, "were recently killed in Northumberland. One of these, in the possession of his Grace the Duke of Northumberland, and from the tints of its plumage, apparently a female,

was shot near Warkworth, in the autumn of 1821 ; the other was killed on the 1st of February 1823, near Twizell, and is placed in my collection. This bird, although destitute of the peculiar markings about the head and neck that distinguish the male in his adult state, or rather perhaps at a particular season, proved, however, to be of that sex, by the unerring test of dissection."

"In the specimen alluded to," he adds, " the stomach was distended with a mass of various grasses and the stems of clover, intermixed with the seeds of cow-parsnip, (*Heracleum spondylium*), and of other umbelliferous plants. No gravel, or other hard substance, generally used by birds possessing strong muscular stomachs or gizzards, was contained in it ; from which it appears that Montagu's views are correct,[1] and that the gastric juice alone is sufficiently powerful, without attrition, to effect the complete dissolution of the food in many herbivorous or granivorous birds. The Little Bustard will also feed eagerly upon grain, and it is said to devour worms and insects."

It lays its eggs upon the bare ground, under cover of the herbage, or low plants: such as the cistus, &c., growing upon the plains it usually frequents. When suddenly disturbed, this bird immediately takes wing, flying with considerable strength and velocity, from fifty to a hundred yards, raised but little above the surface of the ground, and upon alighting, runs off with great swiftness, by this mode generally eluding pursuit.*

LITTLE EGRET.—A name for the Egret.

LITTLE GALLINULE (*Gallinula minuta*, MONTAGU.)

Gallinula minuta, *Mont.*—*Ib.* Supp. with a fig.—Rallus pusillus, *Pallas*, Reise, 3. p. 700. No. 30.—Rallus parvus, Scopoli. Ann.—Gallinella palustre, Storia degli Uccell. 5. p. 482.—Little Gallinule, *Flem.* Br. Anim. p. 99.—Linn. Trans. 14. p. 583.

We are indebted to Mr. Tucker for this very interesting little bird. The weight is two ounces ; length seven inches and three quarters. The bill is five-eighths of an inch long, of a bright green colour ; the upper part of the head dusky brown ; the cheeks pale brown ; over each eye cinereous ; the chin and throat white, shaded into a cream colour on the upper part of the neck before ; the lower part of the neck, breast, sides, and greater part of the body beneath, plain fawn colour ; the lower belly, thighs, and vent, olive brown, spotted with white, and slightly barred with paler brown ; the back and sides of the neck pale olivaceous brown ; back and scapulars black, deeply margined with the same colour as the last, the inner margins very pale, similar to

[1] See Supplement to Orn. Dict. Art. Little Bustard.

the under part of the neck; the rump plain olive brown; the tail of a similar colour; the legs bright green, bare for three-eighths of an inch above the knee, and an inch and a half along from the knee to the toes; the middle toe, including the claw, is of the same length; the claws horn-colour; the hind toe, including the claw, five-eighths of an inch long. The tail is much mutilated, but the remaining feathers are as described, and extend a trifle beyond the point of the wings.

We might have been induced to have considered this bird as an accidental *lusus* variety of the spotted water-hen, had it not been for its very inferior size, and other peculiarities. By weight it is about half the size of the spotted species, and is inferior in length about an inch and a quarter. It has more the shape of the land-rail, being long in proportion to its bulk, and much compressed; the legs and toes are full as long as those of the spotted species; the bill is also of equal length, and rather more slender; the head is smaller, and the neck much more slender; the form of the forehead is essentially different, the feathers sloping from the front to the gape very considerably, which is not the case with the other species; the hind toe is also rather longer than that of an old male spotted water-hen, with which it was compared; the tertials of the wings are remarkably short, an unusual circumstance for a bird of this genus, for, in the land-rail and spotted gallinule, the tertials almost obscure the whole of the primary quills when the wing is closed. There does not appear to be any defect or mutilation in the wings, and both sides are similar, the tertials equally extending to only the point of the seventh feather of the primary quills, leaving the points of the first six conspicuous. The common gallinule, indeed, has not the whole of the primary quills concealed by the tertials, as the ends of four or five may be seen beyond them when the wings are closed.

We have been thus particular, lest a hasty conclusion might be drawn, that this bird is either the young, or a *lusus* variety, of the spotted gallinule; whereas, by the comparative particulars here related, such an opinion cannot exist. We have obtained specimens of the spotted gallinule early in September, and some were evidently the young of that season; and the chief distinction between them and the old birds consisted in being rather less spotted, and the colours not so generally bright, besides being rather smaller; and in these, as in all other young birds, the bill and toes were in proportion. This bird, although not above half the weight, and considerably inferior in length, has the bill and toes fully as long, and more slender, and the back toe rather longer. We have never seen the spotted gallinule in its infancy, nor, perhaps, so soon as it could fly; but the shape and propor-

tion of the limbs would be similar to the adult, in which this bird essentially differs. No author, to our knowledge, has described the spotted gallinule in its early plumage to be different from that of the adult; and we know that in neither the land-rail, the gallinule, nor in the water-rail, which is a bird of similar habits, does any material difference exist between the young and old birds. In fact, the plumage and general appearance are so extremely dissimilar to that of the spotted gallinule, that if this bird had been exotic, a comparison would never have been thought necessary; but as the species of the genus are not numerous, and only three of those known to inhabit this country, the subject required scrupulous investigation, especially as no such bird appears to have been described by any ornithological writer.

Another specimen of the Little Gallinule was shot near Ashburton, in Devonshire, in the year 1809. Another was shot on the banks of the Ware, on the 6th of May, 1807.*

LITTLE GODWIT.—A name for the young of the Stone Plover.

LITTLE GREBE.—A name for the Dabchick.

LITTLE GULL (*Larus minutus*, Pallas.)

* Larus minutus, *Lath.* Ind. Orn. 2. p. 813.—*Gmel.* Syst. p. 595.—*Benicken* annder witter, 3. p. 141.—Nov. Act. Stock, 1783. 2. No. 1. p. 120.—*Pallas*, Reise, 3. p. 702. 3.—Larus attricillades, *Falk*, Reise, 3. 355.—Little Gull, *Lath.* Syn. 6. —*Temm.* Man. d'Orn. 2. 789.—*Flem.* Br. Anim. 142. p. 391. 17.—La plus petite des mouettes, *Sonn.*—*Buff.* Ois. 24. p. 288.

Length rather exceeding ten inches; length of the bill to the feathers on the forehead, rather more than three quarters of an inch; the upper mandible straight for half its length from the base, the other half considerably arcuated; lower mandible straight to the angle, (two-thirds of its length from the base,) from whence it slopes to the point; the inside of the mouth red orange. The forehead and crown of the head white; the back of the head and a trifle of the back of the neck contiguous dark cinereous, with a hoary tinge; behind the eye a white streak; the lower coverts of the ears black, forming a very conspicuous spot of that colour; between the bill and eye white, but at the anterior corner the orbit is black, from whence to the black spot on the ear is a mixture of dark cinereous and white; the whole upper part of the body appears of a fine cinereous grey, like that of the herring, and most of the lighter coloured gulls, but, upon lifting up the scapulars, the lower part of the back is black; the upper tail-coverts pure white; except three or four feathers of the last series, which are tipped with dusky; the tail is slightly concave at the end, but as there is not a regular gradation in the length of the feathers, and an evident dissimilarity in the two sides, there can be no doubt but that they have been recently moulted; all the feathers are white, with their tips black for nearly an

inch, except the outer feather, which is nearly all white, having only a small dusky spot at the end on the inner web; the tips are slightly edged with dirty white; the wings have a mixture of black, white, and cinereous, but the former greatly predominates; the ridge of the wing from the body to the elbow is cinereous, intermixed with dusky for nearly half an inch in breadth; all the rest of the coverts are black, several of the lower series slightly tipped with white; the greater quills are elegantly marked, being white, with the exterior web, the shaft, and part of the inner web close to the shaft, the tip and part of the inner margin black, somewhat like the quill feathers of the magpie; the three first have a small speck of white at the tip, in the others the white spot increases, till on the seventh feather the white occupies the place of the black at the tip; the secondaries are more or less cinereous on the outer web, edged with dusky black towards the base, their tips and inner webs white, with more or less black towards the point, close to the shaft; the tertials are mostly black, with a slight edging of white at the tip; the whole under part from chin to tail is pure white, but the cinereous on the back comes very forward on the sides of the breast. The legs rather exceed an inch in length to the knee, and are bare of feathers for more than a quarter of an inch above the knee; the foot is small, the inner toe considerably shorter than the others; the middle toe a trifle longer than the outer, measuring rather more than an inch, including the claw; these, with the webs and legs, appear to have been yellowish, for they have a strong tinge of that colour even after drying. The wing appears to exceed the tail above an inch and a half when closed, and the two first quills are nearly of the same length, from the tips of which to the elbow is eight inches and a half.

This is another bird of rare occurrence, which has fallen to our lot to record in the British Fauna. It was shot on the Thames, near Chelsea, and is in the collection of Mr. Plasted, of that place, to whom we take this opportunity of expressing our obligations, for having suffered the bird to travel into Devonshire for the purpose of inspection. This specimen of *Larus minutus* is the first that has, we believe, been identified in this country, and is probably extremely rare on any part of the continent so far south. It is not in the plumage of maturity, and consequently is more interesting, because we perceive the same gradual changes as have been noticed in all the species of gulls familiar to us. It is in an intermediate state, or first change between the nestling and the adult. In the adult state of plumage, the head and beginning of the neck are black; the rest of the neck, and under parts of the body white; the back, scapulars, and coverts of the wings cinereous-grey;

tail wholly white and even at the end. The bill is said to be reddish brown; irides bluish; legs red.

The little knowledge we have had communicated to us of the habits of this bird, would not have led us to the discovery of the specimen in question, had we not previously ascertained the changes in plumage to which all our gulls are subject. Taking, for example, the several mutations, we should now have no difficulty of identifying the Little Gull through all its several changes from the time of its leaving the nest, by comparative reasoning. The second material change is, without doubt, a good exemplification of the alteration in plumage of the Little Gull. In this state of plumage we have sufficient marks left to inform us what were its infantine colours, and also what it is in a progressive state of acquiring. The markings of these two species are very similar, but where the feathers are brown in one they are black in the other. From the appearance of the black on the wings, the back under the scapulars, and the tertials, we cannot hesitate to pronounce that the Little Gull is in its first feathers of a very dark colour, probably dusky black, mixed with grey, similar in markings to that of almost all others of our well-known species, only that their feathers are brown and grey. The dusky appearance of the crown of the head, and particularly the black spot on the coverts of the ears, are true indications of a future black head, evinced by similar markings on the black-headed gull; and the black bar at the end of the tail is an invariable character of immaturity in all the well-known species of the gull tribe.

We have been more particular in noticing these characteristic marks of change, in order that this elegant little species may be identified in any state of plumage, since it is at present so little known.

Its native country appears to be the southern parts of Siberia and Russia, and the shores of the Caspian Sea, migrating more northward in summer in order to breed, especially up to the Wolga.*

LITTLE HORNED OWL (*Scops Aldrovandi*, Ray.)

* Strix Scops, *Linn.* Syst. 1. p. 129.—*Gmel.* Syst. p. 290.—*Lath.* Ind. Orn. 1. p. 56.—Strix zorca et Giu, *Ib.* 1. p. 56. 16. 16.—Scops Aldrovandi, *Raii*, Syn. p. 25.—*Will.* p. 65. t. 12.—Le Scops, ou Petit Duc, *Buff.* Ois. 1. p. 353. t. 24.—Pl. Enl. 436.—Hibou Scops, *Temm.* Man. d'Orn. 1. p. 107.—Kleine ohreule, *Bechst.* Naturg. Deut. 2. p. 912.—*Meyer*, Tasschenb. Deut. 1. p. 74.—Le petit Duc, *Briss.* Orn. 1. p. 495. t. 37. f. 1.—*Ib.* 8vo. p. 44.—Little Horn-Owl, *Will.* Orn. p. 101. t. 12.—Scops Eared-Owl, *Lath.* Syn. 1. p. 129.—*Ib.* Supp. 1. p. 43.—*Mont.* Orn. Dict.—*Bewick's* Br. Birds.—*Ib.* Supp.

It is with pleasure we have to announce this species of Owl, as having been occasionally shot in Great Britain within these few years, upon the undoubted authority of Mr. Foljambe, of Osberton, an accurate ornithologist, who assures us that he has a specimen in his collec-

tion, shot in Yorkshire; and that Mr. Fothergill, of York, has another which was shot in the spring of 1805, near Weatherby, in that county. Mr. Foljambe further remarks, that he has heard of others which had been seen in the same neighbourhood.

This species is about the size of the Sparrow Owl (*Strix passerina.*) Length seven inches and a half: the bill is black; irides yellow. The whole plumage is variegated with dusky rufous-brown, and grey; on the upper parts the brown predominates; on the under parts the grey: the quills are transversely barred with rufous-white; the legs are covered to the toes with rufous-grey feathers, spotted with brown; the toes and claws are also brown. The feathers termed the ears appear to be very indistinct in a dead bird, being very short, and composed of three feathers on each side of the head.

From the size and general resemblance of the Little Horned and Passerine Owls, it is not unlikely that they are frequently confounded, especially as the longer feathers on the head of the former are not at all times discoverable, and that both are subject to considerable variation in plumage. Buffon, who probably had frequent opportunities of examining these birds, especially the Little Horned Owl, which is plentiful in France, says the irides of the Little Horned Owl are of a deeper yellow, and the bill entirely black, which in the other is brown, with the tip yellow. The plumage is also dissimilar; the number and regular disposition of the white spots on the wings and body are wanting.

As this appears to be a migrative species on the continent, coming with the swallow into France, and re-migrating about the same time that bird takes its departure, it is rather surprising no naturalist has till lately identified the species in England. They have been known to assemble on the continent in parts where field-mice abound, in order to prey upon them, and it has been suspected that a similar occurrence mentioned by Dale, in his Appendix to the History of Harwich, must have been this species. With this persuasion, Buffon relates the circumstance as belonging to the history of this species, whereas there can be no doubt it was the Hawk Owl, (*Strix brachyotos,*) a bird in some respects of similar habits. Dale, from Childrey, says, "In the year 1580, at Hallowtide, an army of mice so overran the marshes near South Minster, that they eat up the grass to the very roots. But at length a great number of strange-painted Owls came and devoured all the mice. The like happened in Essex in 1648."

Dale ascribes this to the Horn Owl, but we conceive he is equally mistaken in the species. It will be recollected by the ornithologist,

that *Strix brachyotos* is only recently identified as a species, about which there has been various opinions. To Mr. Pennant, we believe, science is indebted for the first specific distinction of that bird. Buffon, it is true, knew something of the Hawk Owl, but not having noticed the auricles, he described and figured it as the Brown Owl (*La Chouette, ou Grand Cheveche, Planch. Enl.* 438.) This species is very common in the warmer parts of Europe during the summer months, but leaves them on the approach of autumn for the warmer regions. Temminck says, "it is rare in Holland," and that "it builds its nest in the cleft of a rock, or in a hole formed in a tree, laying from two to four white eggs."

LITTLE MOUNTAIN FINCH.—A name for the Snow Fleck.

LITTLE OWL.—A name for the Sparrow Owl.

LITTLE PETREL.—A name for the Petrel.

LITTLE SANDPIPER (*Tringa pusilla*, LINNÆUS.)

Tringa pusilla, *Gmel.* Syst. 2. p. 681.—*Lath.* Ind. Orn. 2. p. 737. 8.—Cinclus minor, *Briss.* 2. p. 269.—Tringa Temminckii, *Leisler*, 1. p. 65. 9. 70. and 73.—*Temm.* Man. d'Orn. 2. p. 622.—Little Sandpiper, *Mont.* Orn. Dict. and Supp.—*Flem.* Br. Anim. p. 108.—Little Stint, or Least Snipe, *Bewick's* Br. Birds, 2. t. p. 122.—Brown Sandpiper, Br. Zool. 2. No. 195.

This bird seems to have met with the same fate as most of its congeners, by being multiplied into at least two species. An adult female killed on the south coast of Devonshire weighed six drams; length six inches; bill dusky, three quarters of an inch long, very slender, a little bending downwards, and rather larger near the points than in the middle; irides dusky; the forehead, crown of the head, back of the neck, back, and scapulars, dark cinereous; dusky down the shafts, except on the neck, which is rather lighter coloured than the rest; from the bill to the eye a dusky-brown streak; above that, an obscure dirty white one; chin and throat white; fore part of the neck and upper breast pale cinereous-brown; lower breast, belly, vent, and under tail coverts, pure white; primores, secondaries, and the greater coverts immediately impending on them, dusky, very slightly tipped with white, most so on the coverts, and the primores margined with white on the outer webs, except the two first; the shaft of the first quill is white, the others dusky brown; spurious wing, and smaller coverts near it, dusky; those along the ridge of the wing dusky and cinereous; the rest of the coverts and tertials cinereous, like the back, a few of the former edged with pale rufous-brown; the rump and upper tail coverts dusky, the feathers slightly tipped with cinereous; the tail is cuneiform, composed of twelve feathers, the six middle ones are cinereous, the two middlemost inclining to dusky; the three outer feathers on each side pure white; legs light

olive-brown, three quarters of an inch long; claws black; outer toe very slightly connected at the base by a membrane to the middle one.

This bird was shot for a jack snipe on a salt marsh not very remote from the sea, in the month of November.

Another specimen, which is without doubt the *Tringa pusilla*, in its nestling feathers, or prior to its first moulting, had the forehead and cheeks round the eyes very pale, nearly white, throat and all beneath white, except across the breast, where it is mixed with light brown; the crown of the head, back, scapulars, and wing coverts, dusky black, margined with pale rufous, while in some of the scapulars the margins are nearly white, which gives the bird a spotted appearance; the back of the neck is brown, mixed with cinereous, equally like those of the other; the middle feathers of the tail, like the tertials, dusky, bordered with ferruginous; the others cinereous, palest on the margins; legs dusky.

Making some allowance for the different manner in which authors describe the same bird, as well as the very vague definition of colours, there is no doubt that this is the least snipe of Bewick, and the Brown Sandpiper of the British Zoology. Most young birds that differ from these points at first are more or less spotted or mottled, and among the Sandpipers this is a common primary appearance; the young of the dunlin, knot, and some other species, are more spotted than the adult, and we perceive that the perfect state of the Little Sandpiper is a plain cinereous brown, with dusky shafts only.

LITTLE WHITE HERON.—The young of the Little Egret.

LITTLE YELLOW BIRD.—A name for the Hay Bird.

LONG-EARED OWL.—A name for the Horn Owl.

LONG-LEGGED PLOVER.—A name for the Stilt.

LONG-LEGGED SANDPIPER.—A name for the Wood Sandpiper.

LONG NECK.—A name for the Bittern.

LONG-TAILED CAPON.—A name for the Bottle Tit.

LONG-TAILED DUCK.—A name for the Sarcelle.

LONG-TAILED MAG.—A name for the Bottle Tit.

LONG-TAILED TIT.—A name for the Bottle Tit.

LONG TONGUE.—A name for the Wryneck.

LOON (*Colymbus glacialis*, Linnæus.)

Colymbus glacialis, *Linn.* Syst. 1. p. 221. 5.—*Gmel.* Syst. 2. p. 588.—Ind. Orn. 2. p. 799. 1.—*Temm.* 2. p. 910.—Colymbus maximus caudatus, *Raii*, Syn. p. 125. A. 4.—*Will.* p. 259.—Mergus major nævius, *Briss.* 6. p. 120. 6. t. 11. f. 2.—Mergus nævius, *Briss.* 6. p. 118. 5.—*Ib.* 8vo. 2. p. 391. 392.—L'Imbrim, *Buff.* 8. p. 258. t. 22.—Greatest speckled Diver, or Loon, *Will.* (Angl.) p. 341. *Albin*, 3. t. 93.—Northern Diver. Br. Zool. 2. No. 327. t. 84.—*Ib.* fol. 139. t.

K. 2.—Arct. Zool. 2. No. 439.—*Don.* Br. Birds, 3. t. 58.—*Lath.* Syn. 6. p. p. 337. 1.—*Pult.* Cat. Dorset. p. 17.—*Walc.* Syn. 1. t. 90.—*Lewin's* Br. Birds, 6. t. 226.—*Flem.* Br. Anim. p. 132.—*Wils.* Amer. Orn. 9. p. 74.

FEMALE.

Colymbus Immer. *Linn.* Syst. 1. p. 222. 6.—*Gmel.* Syst. 2. p. 588.—*Lath.* Ind. Orn. 2. p. 800. 2.—Colymbus maximus Gesneri, *Raii,* Syn. p. 126. 8.—*Will.* p. 260. 3.—Mergus major, *Briss.* 6. p. 105. 1. t. 10. f. 1.—*Ib.* 8vo. 2. p. 389.—Le grande plongeon, *Buff.* Ois. 8. p. 251.—Ember Goose, *Sibbald,* Scot. 21.—Imber Diver, Br. Zool. 2. No. 238. t. 84.—Arct. Zool. 2. No. 440.—*Will.* (Angl.) p. 342.—*Lath.* Syn. 6. p. 340. 2.—*Pult.* Cat. Dorset. p. 17.—*Walc.* Syn. 1. t. 99.—*Don.* Br. Birds, 4. t. 99.—*Lewin's* Br. Birds, 6. t. 227.—*Mont.* Orn. Dict. 1.

Provincial.—Gunner. Greater Doucker.

This species is the largest of the genus, sometimes weighing as much as fifteen or sixteen pounds; length near three feet and a half. The bill is black, four inches and a half long; irides purplish; the head and neck deep velvety black; on the throat are several parallel white lines, formed of raised feathers; on each side the neck a large portion of the same, almost uniting behind and before; the sides of the breast streaked with black and white lines; the back, scapulars, and wing coverts, are black, marked with white spots in a most elegant manner; those on the back and rump are small and round, the others are larger and of a square form, disposed in rows; the quills and tail are black; the breast and under parts of the body white, with a few black streaks under the wings; legs black. The female is not so large, and the white markings on the neck are less distinct. The variation which has been observed in the plumage of these birds, has very justly been considered to be owing to its not arriving at perfection till the second, or perhaps the third year. The northern diver is rarely met with in the southern parts of England; seldom leaving the water; but instances are recorded of its having been taken alive on land. In the spring of the year 1797, one of these birds was taken near Penzance, in Cornwall, at some distance from water. It appeared incapable of raising itself from the ground; it did not seem to have any defect, as it lived for six weeks in a pond, and was supplied with fish; but for want of a sufficient quantity, was starved, as was apparent when we dissected it for preservation. It is not uncommon in Iceland and Greenland, where it breeds in the fresh waters, and is said to lay two large eggs, of a pale brown-colour, in the month of June. Is plentiful in Norway and some parts of Russia. In the latter country, as well as in some others, the skin is dressed and used for various sorts of clothing. It is tough, and well covered with soft down.

The female has been described as a distinct species, under the name of imber diver. In length she measures two feet; bill four inches long, of a dusky brown-colour; the top of the head and back part of the neck brown; forehead, sides of the neck and cheeks, speckled with brown;

the feathers on the back and wings brown, with paler margins; the throat and part of the neck before, spotted black and white; quills and tail brown, and in some dusky, edged with white; the whole under parts white, with a little brown about the vent; legs dusky; the general colour is less bright than the male above, and dusky beneath.

It should appear that the size of this species has been commonly exaggerated, or they must vary very materially, since those which have come under our examination did not exceed ten pounds, and an old or matured male measured only two feet eight inches. A young female before the plumage was perfected, weighed eight pounds six ounces, and measured two feet seven inches in length. This young female killed in January, has the upper part of the head, back, and sides of the neck dusky black; backs and scapulars black, obscurely marked with cinereous spots; in a few places the matured feathers appear on the scapulars of a deeper glossy-black, marked with the clear white quadrangular spots as in the adult: the coverts of the wings, rump, and upper part of the thighs black, with numerous small, pure white spots: the sides of the lower neck and breast, continuing along the sides of the body under the wings, streaked black and white; the whole under parts of the bird, from chin to vent, white: the tail is short and rounded, consisting of twenty black feathers tipped with white.

From this immatured specimen we obtain the knowledge of the primary plumage, which is essential, because with so little of the character of the adult, the bird might have been mistaken for some other species, had not the few square spots of white on the scapulars betrayed its title.

A northern diver, taken alive, was kept in a pond for some months, which gave us an opportunity of attending to its manners. In a few days it became extremely docile, would come at the call, from one side of the pond to the other, and would take food from the hand. The bird had received an injury in the head, which had deprived one eye of its sight, and the other was a little impaired; but, notwithstanding, it could, by incessantly diving, discover all the fish that was thrown into the pond. In defect of fish it would eat flesh.

It is observable that the legs of this bird are so constructed and situated, as to render it incapable of walking upon them. This is probably the case with all the divers, as well as the grebes.

When this bird quitted the water, it shoved its body along upon the ground like a seal, by jerks, rubbing the breast against the ground; and returned again to the water in a similar manner. In swimming and diving, the legs only are used, and not the wings, as in the guillemot and auk tribes; and by their situation so far behind, and their

little deviation from the line of the body, it is enabled to propel itself in the water with great velocity in a straight line, as well as turn with astonishing quickness.

LOUGH DIVER.—A name for the Smew.

LOXIA (Brisson.)—* Crossbill, a genus thus characterised. Bill rather long, both mandibles equally convex, and very strong, much compressed; and, when at rest, crossing each other at the points, and having their cutting edges from the middle forward bending inward. Nostrils round at the sides of the base, and hidden by bristly-reflected feathers. Legs with the feet having three toes before and one behind, the fore ones entirely divided. Wings having the first and second quills of equal length, the third being the longest in the wing.*

LOXIADÆ (Vigors.)—* Crossbills, a group of perching birds (*Insessores*, Vigors.)*

LUMME (*Colymbus arcticus*, Linnæus.)

Colymbus arcticus, *Linn.* Syst. 1. p. 221. 4.—*Gmel.* Syst. 2. p. 587.—Ind. Orn. 2. p. 800. 4.—*Raii*, Syn. p. 125. 7.—*Will.* p. 259. t. 62.—*Ib.* (Angl.) p. 343. t. 62.—*Temm.* 2. p. 916.—Mergus gutture nigro, *Briss.* 6. p. 115. 4.—*Ib.* 8vo. 2. p. 391.—Lumme, *Buff.* 8. p. 262.—Black-throated Diver, Br. Zool. 2. No. 241. t. 85. f. 2.—Arct. Zool. 2. No. 444.—*Edw.* t. 146.—*Lath.* Syn. 6. p. 343. 4.—*Lewin's* Br. Birds, 6. t. 229.—*Flem.* Br. Anim. p. 133.—*Mont.* Dict. 1.

Provincial.—Northern Doucker. Speckled Zoon.

The length of this species is two feet; bill near two inches long, slender, black; the fore part of the head and throat black; hind part of the head and neck ash-colour; sides of the neck white, spotted black; on the fore part of the neck a large patch of black, changeable to purple and green in different lights; the back and upper parts black; scapulars marked with square spots of white; wing coverts with round spots; breast and belly white; quills dusky; tail short and black; legs black, with a reddish cast on the inside.

This bird is rarely found in England, but is not uncommon in the northern parts of Europe; said to inhabit the lakes of Siberia, especially those of the arctic regions, as well as North America, particularly Hudson's Bay.

In some countries the skin is used for various sorts of clothing, and other purposes, being warm and exceedingly tough, which is common to all the genus.

LUNDA.—A name for the Puffin.

LUNGS OF BIRDS are internally attached to the spinal part of the breast. They are not divided into lobes, as in quadrupeds. The membrane (*Pleura*) which covers them, communicates by many openings with different parts of the body, for the purpose of transmitting air to render the body buoyant.

LYRE or LYNE.—Names for the Sheerwater.

Magpie and Nest.

MADGE HOWLET.—A name for the Barn Owl.

MAGPIE (*Pica caudata*, Ray.)

Corvus pica, *Linn.* Syst. 1. p. 157. 13.—*Gmel.* Syst. 1. p. 373.—*Raii*, Syn. p. 41. A. 1.—*Will.* p. 87. t. 19.—*Lath.* Ind. Orn. 1. p. 162. 32.—*Briss.* 2. p. 35. 1—*Ib.* 8vo. 1. p. 164.—Pica caudata, *Flem.* Br. Anim. p. 87.—**Wils.* Amer. Orn. 4. p. 75. pl. 35. f. 2.—La Pie, *Buff.* Ois. 3. p. 85.—*Ib.* pl. Enl. 488.—Pie, *Temm.* Man. d'Orn. 1. p. 113.—Garten-Grabe, *Bechst.* Naturg. Deut. 2. p. 1267.—*Frisch*, Vög. t. 58.—Magpie, Br. Zool. 1. No. 78.—Arct. Zool. 2. No. 66.—*Lewin's* Br. Birds, t. 39.—*Will.* (Angl.) p. 127. t. 19.—*Lath.* Syn. 1. p. 392. 29.—*Ib.* Supp. p. 80.—*Mont.* Orn. Dict.—*Bewick*, Br. Birds.—*Pult.* Cat. Dorset. p. 5.—*Don.* Br. Birds, 4. t. 95.—*Shaw's* Zool. 7. p. 369.*

Provincial.—Madge. Hagister. Pyet. Pianet.

This species is about eighteen inches in length; weight between eight and nine ounces. Bill black; irides hazel; the breast, upper part of the belly, and scapulars, white; the rest of the plumage black; the wings and tail beautifully glossed with blue, green, and purple; the ten

first quill feathers are white in the middle on the inner web; the tail is nine inches and a half long, and very cuneiform, the outer feathers not being much above half as long as the middle ones; legs and claws black.

The female differs only from the other sex in being rather less, and in the tail being shorter.

It has been very justly remarked, that England does not produce a more beautiful bird than the Magpie; but that those who have only seen the dirty mutilated specimens in captivity can form no idea of its native beauty. These birds generally continue in pairs the whole year; and though shy, it rarely removes far from the habitation of man. Its attachment, however, is governed by self-interest; it is a great enemy to the husbandman, but has cunning enough to evade his wrath. No animal food comes amiss to its carnivorous appetite; young poultry, eggs, young lambs, and even weakly sheep, it will attempt to destroy by first plucking out their eyes; the young of hares, rabbits, and feathered game, share the same fate; fish, carrion, insects, and fruit; and, lastly, grain, when nothing else can be got. It is an artful clamorous bird, proclaiming aloud any apparent danger, and thereby giving notice to its associates. Neither the fox nor any other wild animal can appear without being noticed and haunted; even the fowler is frequently spoiled of his sport, for all other birds seem to know the alarming chatter of this bird.

Its nest is curiously built for the defence of its young; it is of an oval shape, made of sticks, generally the black thorn, strongly woven together, with only a sufficient entrance on one side; the bottom is plastered with earth, and lined with fibrous roots.

*Amongst our larger birds the Magpie excels all her congeners in architectural skill, though several of the older naturalists were inclined to attribute to her more ingenuity than facts will corroborate. Albertus Magnus, for example, says, "she not only constructs two passages for her nest, one for entering and another for going out, but frequently makes two nests on contiguous trees, with the design of misleading plunderers, who may as readily choose the empty nest as the one containing the eggs; on the same principle that Dionysius the Tyrant had thirty sleeping-rooms." Others maintain that the opening opposite the passage is for the tail of the mother Magpie when hatching; but before speculating upon the use of this, it would have been well to ascertain its existence; for among the numerous Magpies' nests which I have seen, (two very perfect ones are now before me,) the alleged second

opening is by no means apparent, though in some instances the twigs may appear more loosely woven than in others; but seldom so much so, I think, as to permit a passage to the bird.

There is considerable discrepancy in the account given by naturalists of the haunts of the Magpie. "The tall tangled hedge-row," says Mr. Knapp, "the fir-grove, or the old well-wooded enclosure, constitutes its delight, as there alone its large dark nest has any chance of escaping observation."[1] "It always," says Jennings, "builds a solitary nest, either in a thorn-bush, or on some lofty elm, and sometimes on an apple-tree. It does not often build very near dwelling-houses; but a remarkable exception to this has lately occurred in Somersetshire, at Huntspill: a Magpie not only having built its nest on a tree a very short distance from a dwelling-house, but occupying the same nest two years successively."[2]

Wilson, on the other hand, speaking, I apprehend, of its habits in Scotland as well as in America, says, "it generally selects a tall tree adjoining the farm-house for its nest, which is placed amongst the highest branches." Mr. Mudie says "it nestles in the tall hedge, or in a thick tree, near the cottage. It is no bird of the wilderness."[3]

This agrees with my own observation; for I have remarked the Magpie to be no less partial to human neighbourhood than its cogener the rook; and so far from sequestering itself,—though it is certainly a shy and wary bird,—I have seldom met with it except near farm-houses. In the north, almost every farm has its denizen pair of Magpies, which incubate in their hereditary nest on the old ash-tree, year after year, and probably for century after century, precisely like a hereditary colony of rooks. In the more closely-wooded districts of the south, indeed, it does not so frequently build on the trees in the farm-yard; yet I observed in 1830, a Magpie's nest in such a locality, on the very borders of Epping Forest, near Chigwell; and another in a clump of elms about a hundred yards from Syon-House, the seat of the Duke of Northumberland.

Goldsmith, who is unusually copious in his history of the Magpie, gives it credit for extraordinary instinct or intelligence. "The nest," he says, "is usually placed conspicuous enough, either in the middle of some hawthorn-bush, or on the top of some high tree. The place, however, is always found difficult of access; for the tree pitched upon usually grows in some thick hedge-row, fenced by brambles at the

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[1] Journ. of a Naturalist.

[2] Ornithologia, p. 20, Note. See also Bloomfield's Remains, ii. 129, &c.

[3] British Naturalist, ii. 214.

root; or sometimes one of the higher bushes is fixed upon for the purpose." [1]

From the very inaccurate descriptions given in books of the structure of the Magpie's nest, it would be impossible for a person to identify it, though it be so very conspicuous and distinct. Bonnet tells us that the birds "fortify all the exterior of the edifice with bushes and mortar, composed of moist earth, similar to that employed by the swallow." [2] "The body of the nest," says Goldsmith, "is composed of hawthorn branches, the thorns sticking outward, but well united together by their mutual insertions. Within it is lined with fibrous roots, wool, and long grass, and *then* nicely plastered all round with mud and clay." [3] "The interior of the nest," says Mr. Mudie, "is made of soft grass and wool, hair or feathers." [4] But two fine specimens now before me have no plastering on the outside, but upon the foundation, layers of sticks, pieces of turf and clay, are piled up, intermixed with sticks, chiefly thorns; and on the top of the mound thus formed, a circular hollow cup of well-wrought clay is built of considerable thickness, and about a foot deep. This is lined with a mass of pliable roots, both of trees and herbs, very neatly interwoven into a compact basket-work. There is not a particle of grass, wool, hair, or feathers, either in these nests nor in any others which I have examined; but it is possible that this, though certainly not usual, may occur.

The dome, which, from some of the preceding statements, we might infer to be plastered on the outside with clay, is a loose, irregular fabric of blackthorn twigs, laid crossways in all directions, and raised pretty high above the body of the nest. This dome is probably constructed wholly for defence against enemies; at least I have never seen it close enough to afford much shelter from rain, to which it is usually every where pervious.

It lays six or seven eggs early in the spring, of a yellowish white, spotted with brown and cinereous: the places of nidification, Montagu says, are various; sometimes on the top of a high tree, in a thick bush or hedge, and frequently at a small distance from the ground, from which circumstance it has been supposed that there are two species, which have sometimes been denominated the Tree-Mag and Hedge-Mag, distinguished, according to Graves, by greater length of the body and tail.

In winter these birds will assemble in great numbers to roost in some

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[1] Animated Nature, iii. 170. [2] Contempl. de la Nature, pt. xii., Note 6.
[3] Animated Nature, iii. 171. [4] Brit. Nat. ii. 219.

coppice or thicket towards the evening, but separate again on the approach of day. When reclaimed it becomes very docile, and seems to have its natural faculties heightened by domestication, imitating the human voice, and various other sounds.

MAGPIE DIVER.—A name for the Smew.

MALDUCK.—A name for the Fulmer.

MALMARSH.—A name for the Fulmer.

MALLARD.—A name for the Duck.

MANX PETREL.—A name for the Shearwater.

MARKET JEW.—A name for the Chough.

MARSH HARRIER.—A name for the Moor Buzzard.

MARSH HEN.—A name for the Willock.

MARSH TIT (*Parus palustris*, LINNÆUS.)

* Parus palustris, *Linn.* Syst. 1. p. 341. 8.—*Gmel.* Syst. 1. p. 1009. sp. 8.—*Lath.* Ind. Orn. 2. p. 565. sp. 9.—*Raii*, Syn. p. 73. A. 3.—*Will.* p. 175. t. 43.—*Briss.* 3. p. 555. 7.—Parus atricapillus, *Gmel.* Syst. 1. p. 1008. sp. 6.—*Lath.* Ind. Orn. 2. p. 566. sp. 10.—La Nonnette cendrée, *Buff.* Ois. 5. p. 403.—*Ib.* pl. Enl. 3. f. 3.—Le Mesange à tête noir du Canada, *Buff.* Ois. 5. p. 408.—Mesange Nonnette, *Temm.* Man. d'Orn. 1. p. 291.—Sumpfmeise, *Bechst.* Naturg. Deut. 3. p. 874.—*Meyer*, Tasschenb. Deut. 1. p. 271.—*Frisch*, t. 13. f. 2. B.—Marsh Titmouse, or Black Cap, Br. Zool. 2. No. 165. t. 57. f. 4.—Arct. Zool. 2. p. 427. E.—*Will.* (Angl.) p. 241. t. 43.—*Lath.* Syn. 4. p. 541. 8.—*Mont.* Orn. Dict. 2.—*Lewin's* Br. Birds, 3. t. 119.—*Pult.* Cat. Dorset. p. 10.—*Bewick's* Br. Birds.—*Shaw's* Zool. 10. p. 56.—*Flem.* Br. Anim. p. 80.—Canada Titmouse, Arct. Zool. 2. No. 328.—*Lath.* Syn. 4. p. 548. 9.*—*Selby*, pl. 51. fig. 4. p. 230.*

Provincial.—Little Black-headed Tomtit.

The length of this species is about four inches and a half; weight two drams and a half. The bill is dusky; irides dark hazel. Crown of the head black, but not glossy; cheeks of a dirty white; chin black, in some spotted with white; the back of a rusty grey; breast and belly of a light brownish buff-colour; quills and tail bluish grey, lightest on their outer margins; legs lead-colour.

We must here again remark, that this species is not to be confounded with the cole tit. If no other marks of distinction were wanting than the white on the back of the head and wing coverts, it would be sufficient; but this is a larger bird, the colour on the back is not of that bluish cast, and the tail is longer.

We shall, however, refer our reader to the history of that species, where we have more copiously defined the distinction.

The Marsh Tit has more the habits of the blue species, partaking with it of flesh, and attending the oat ricks. It appears partial to low wet ground, where old willow trees abound, in the holes of which it frequently makes its nest. In such situations it finds a plentiful supply of food, which consists, during the greater part of the year, of insects

and their larvæ. We have seen it artfully excavating the decayed part of that tree, carrying the chips in its bill to some distance, always working downwards, making the bottom for the reception of the nest larger than the entrance. The nest is composed of moss and thistle-down, sometimes a little wool, and lined with the down of the thistle. It lays five or six white eggs, spotted with rusty red, mostly at the larger end; their weight from nineteen to twenty-one grains.

We shall here remark, that all the species of Tits, whose eggs are known, are similar in colour, and only to be distinguished from each other by size and weight. Those of the nuthatch, creeper, wren, yellow wren, wood wren, and chiff-chaff, all agree in their markings, and are so like those of the Tits, that it is scarce possible to separate them with certainty, if once mixed together; and it is somewhat remarkable that all these birds breed in holes, or make a covered nest. This bird is not so common as the great or blue species, but more plentiful than the cole tit. It is also found in many other parts of Europe, especially in Sweden and Italy. The notes of the three species with black heads are much alike, especially that which is like the whetting of a saw, and the whistle made use of only in the spring; but their chatter is to be distinguished.

"This species," says Selby, "is seldom seen in search of food upon the higher trees, like others of its tribe, but confines itself to underwood, flitting from bush to bush near the ground."

MARTIN.—A name for the Window Swallow.

MARTINET.—A name for the Window Swallow.

MARYGOLD FINCH.—A name for the Gold-Crested Wren.

MAVIS.—A Scotch name for the Thrush.

MEADOW PIPIT (*Anthus pratensis*, Bechstein.)

*Anthus pratensis, *Bechst.* Naturg. Deut. 3. p. 732. t. 36. f. 2.—Alauda pratensis, *Lath.* Ind. Orn. 2. p. 49. 3. sp. 5.—*Linn.* Syst. 1. p. 287. 2.—*Gmel.* Syst. 1. p. 792.—*Raii*, Syn. p. 69. A. 3.—*Will.* p. 150.—*Briss.* 3. p. 343. 3.—Spipola altera Aldrov. *Raii*, Syn. p. 80. 4.—*Will.* p. 153. 171.—Alauda campestris, *Lath.* Ind. Orn. 2. p. 495. 12.—Le Cujelier, *Buff.* pl. Enl. 660. f. 2.—L'Alouette de Pres, *Buff.* Ois. 5. p. 31. t. 3.—Pepit Farlouse, *Temm.* Man. d'Orn. 1. p. 269.—Wiesenpieper, *Meyer*, Tasschenb. Deut. 1. p. 255.—*Frisch*, t. 16. f. 2. A.—Tit Lark, Br. Zool. No. 138.—Arct. Zool. 2. p. 395. C.—*Albin*, t. 43.—*Will.* (Angl.) p. 110.—*Lewin's* Br. Birds, 3. t. 98.—*Lath.* Syn. 4. p. 374. 5.—*Walc.* Syn. 2. t. 191.—*Mont.* Orn. Dict.—*Ib.* Supp. and App. to Supp. —*Pult.* Cat. Dorset. p. 8.—*Low's* Faun. Orcad. p. 67.—*Bewick's* Br. Birds, 1. p. 185.—*Shaw's* Zool. 10. p. 540.—Pipit Lark, *Mont.* Orn. Dict.—*Shaw's* Zool. 10. p. 542.—Meadow Lark, *Lath.* Syn. 4. p. 378. 10.—*Shaw's* Zool. 10. p. 539. *Selby*, pl. 49. fig. 4. p. 216.

Provincial.—Titlark. Grey Cheeper. Moss Cheeper.*

This species weighs about four drams, forty grains; length nearly five inches and three quarters. Bill slender, dusky, except at the base of the under mandible; irides hazel.

The upper part of the head, and whole plumage above, is of a dusky brown, with paler margins; from each side the under mandible a dusky line passes down the side of the throat; the throat and under parts dirty white; the sides of the neck and breast marked with oblong spots of dusky; quills dusky brown, slightly edged with a paler colour; tail the same, the outer feather white, except at the base of the inner web; the next has a little white at the point; legs brownish.

The Meadow Pipit is a very common bird in most parts of the kingdom; it is partial to barren situations, and is found equally on the mountainous parts as well as in the low and swampy places. In Scotland it is almost the only bird found upon the vast extended tracks of heath, amongst which it breeds: the nest is placed on the ground amongst furze or long grass, and is composed of bents, dry grass, and stalks of plants, lined with fine dry grass, and sometimes long horse-hair. The eggs vary considerably in colour; being sometimes found of a dark brown, at others whitish, thickly speckled all over with rufous brown, or of a pale brown, tinged with red; they are generally six in number. In winter these birds mostly frequent the lower grounds in search of insects and worms, keeping together in small flocks.

We have found the eggs of this bird, from different nests, weigh from twenty-four to thirty-four grains.

* The various and fluctuating opinions, concerning the distinction between the Meadow Pipit and tit-lark, have been the means of calling our particular attention to the subject. We formerly thought these birds a distinct species; but more recent observations induce us to recall that opinion, and to bring them together as one species. We before noticed that the tit-lark remained with us the whole year, changing its plumage in the autumn, and becoming more olivaceous yellow.

The supposed Pipit, on the contrary, was believed to appear in this country only in the autumn, and nothing further had been traced of this bird. With the knowledge that the annual change in plumage has so frequently deceived the most able naturalists, we were anxious to push our researches further respecting these two supposed species.

A bird so common as the tit-lark was easily procured at different periods throughout the summer months, from the time of incubation till the autumn. We have taken its nest with young, and have shot young tit-larks in the month of July, some time after they had left their nest, when all their feathers were perfect, and have invariably found them in the plumage of the supposed Pipit, differing considerably in the tints from the parent birds. We have also shot the old birds in all the latter months of the year, and have found that their feathers

become more like the plumage of the young birds in the autumn, and when completely moulted are not to be distinguished.

This plumage, which has been assigned to the Pipit, is continued through the winter, but the brighter hue of the olivaceous yellow becomes faded towards the spring, and the throat, breast, and margins of the feathers of the upper part of the body, continue to grow paler as the summer advances, until they are thrown off in the autumn.

With considerable attention to the weight and measurement, it has been found that they are subject to a little variation, but the last variation is found to be as great in one state of plumage as in the other.

"In Scotland," says Syme, "it is almost the only bird found upon the vast extended heaths amongst which it breeds. We have often seen them upon Arthur's Seat and Salisbury Crags, near Edinburgh; likewise on the Calton Hill, on which is now built part of that city; and there, before the public walks, &c., were made, we have found its nest. This bird, like most of the lark genus, sings on the wing, springing up, hovering a little, and then descending slowly, warbling till it reaches the ground, which it does with a kind of sweep and a jerk of the tail as it alights. Its natural song is sweet, but short; but, by proper care, it may be made an excellent song-bird; and, after being taught, it may be put, with great advantage, beside young canaries, goldfinches, chaffinches, &c., who will readily learn its notes. The nest of this bird is made of coarse grass; sometimes a little moss is added, and lined with fine grass, and horse-hair; it is placed in tufts of grass, at the roots of furze, or close to a bush or stone near the ground. The eggs, four to six in number, vary considerably in colour, some being of a dark reddish-brown, others whitish, thickly speckled with reddish-brown, or pale orange-coloured brown spots. The hen builds her nest in April."*

MEGG CUT-THROAT.—A name for the White-Throat.

MERGANSER (*Mergus serrator*, Linnæus.)

Mergus serrator, *Linn.* Syst. 1. p. 208. 3.—*Gmel.* Syst. 2. p. 546. 3.—*Temm.* Man. d'Orn. 2. p. 886.—*Lath.* Ind. Orn. 2. p. 829. 4.—Mergus cirratus fuscus, *Raii*, Syn. p. 135. A. 4.—*Will.* p. 255. t. 64.—Mergus niger, *Gmel.* Syst. var. Y.—Mergus cristatus, *Briss.* 6. p. 237. 2. t. 23.—*Ib.* 8vo. 2. p. 424.—Le Harle noir, *Briss.* 6. 253.—Le Harle huppé, *Buff.* Ois. 8. p. 273.—Red-breasted Merganser, Br. Zool. 2. No. 261. t. 93.—*Ib.* fol. 147.—Arct. Zool. 2. No. 466.—*Edw.* t. 95.—*Albin*, 2. t. 101.—*Lath.* Syn. 6. p. 423. 3.—*Lewin's* Br. Birds, 6. t. 233. *Walc.* Syn. 1. t. 81.—*Pult.* Cat. Dorset. p. 18.—*Don.* Br. Birds, 2. t. 38.—*Flem.* Br. Anim. p. 129.

Provincial.—Red-breasted Goosander. Lesser-toothed Diver.

This species is about twenty-one inches in length; weight two pounds. The bill is three inches long; the upper mandible dusky, the lower

red; irides purplish red. The head and part of the neck black, glossed with green; on the back of the head the feathers are long, forming a sort of pendant crest; the rest of the neck and under part of the body white; breast ferruginous, mixed with black and white; upper part of the back glossy black; rump marked with brown and cinereous transverse streaks; the scapulars and wing coverts are some black and some white; quills dusky; tail brown; legs orange; claws black.

The trachea of the male has an enlargement about the middle, consisting of bony plates, of the same texture as the rest of it: at the lower part is a large labyrinthic bony cavity, of an irregular heart shape, with two openings on one side, and one on the other, all of which are covered with fine membranes; and from the bottom of this the two branchi spring and enter the lungs.

Mr. Pennant says, this species breeds in the isle of Ely, on the shores amongst the loose stones. They sometimes appear in the south of England in winter, but more frequently in the north; and are said to breed in Scotland in some of the lochs. They are found in the Russian dominions, about the great rivers of Siberia.

They are also said to breed on the shores of Greenland, and are observed at Hudson's Bay in large flocks, breeding there as well as at Newfoundland, chiefly on the islands. The nest, which is built on the margin of lakes and rivers, is said to be made with dry grass, lined with down; the eggs are generally eight in number, of a bluish white; sometimes as many as thirteen in a nest, about the size of those of a duck. The young may be distinguished from the adult, by the black band on the wing spot.

MERGUS (Linnæus)—*Merganser, a genus thus characterised. Bill of middle size, or long, straight, slender, conical, elongated, and almost cylindrical, base broad; point of the upper mandible much curved, with a hooked rail; margins of both the mandibles toothed like a saw, the teeth directed backwards; nostrils at the sides, towards the middle of the bill, elliptical, longitudinal, pierced from part to part; legs short, retracted towards the abdomen; three toes before wholly webbed; the hind toe free, jointed upon the shank, carrying a rudiment; wings of mean length, the first quill as long as the second, or a little shorter.*

MERLE.—A name for the Blackbird.

MERLIN (*Falco Æsalon*, Temminck.)

MALE.

* Falco Æsalon, *Temm.* Man. d'Orn. 1. p. 27.—*Vigors*, Zool. Jour. 1. p. 339.—Faucon Emerillon, *Temm.* Man. d'Orn.—Falco Litho-Falco, *Lath.* Ind. Orn. 1. 47. t. 115.—*Gmel.* Syst. 1. p. 278.—*Briss.* 1. p. 349. 8.—*Raii*, Syn. p. 14. 8.—

Falco cæsius, *Meyer*, Tasschenb. Deut. 1. p. 60.—Le Rochier, *Buff.* Ois. 1. p. 286.—*Ib.* pl. Enl. 447.—Stone Falcon, *Lath.* Syn. 1. p. 93. 77.—*Mont.* App. to Supp. of Orn. Dict.—*Shaw's* Zool. 7. p. 182.—*Selby*, pl. 18. and 18*. p. 45.

FEMALE AND YOUNG.

Falco Æsalon, *Gmel.* Syst. 1. p. 284. sp. 118.—*Lath.* Ind. Orn. 1. 49. t. 119.—*Raii*, Syn. p. 15. 15.—*Briss.* 1. p. 382. 23.—*Will.* p. 50. t. 3.—L'Emerillon, *Buff.* Ois. pl. Enl. 468. Young Male.—Merlin, Br. Zool. 1. No. 63.—*Will.* (Angl.) p. 85. t. 7.—*Lewin's* Br. Birds, 1. t. 22.—*Lath.* Syn. 1 p. 106. 93.—*Ib.* Supp. p. 27.—*Mont.* Orn. Dict.—*Pult.* Cat. Dorset. p. 3.—*Low's* Faun. Orcad. p. 39.—*Walc.* Syn. 1. t. 22.—*Don.* Br. Birds, 4. t. 94.—*Bewick's* Br. Birds, 1. t. 41.—*Shaw's* Zool. 7. p. 196.—*Flem.* Br. Anim. p. 50.

The weight of the male of this species of falcon is about five ounces; length ten inches. Bill bluish lead-colour; cere greenish yellow; irides dusky. The crown of the head is dusky brown, streaked with black down the shafts of each feather: on the back of the head the feathers are white at the base, tipped with ferruginous; the middle of each feather black at the point; the back, scapulars, rump, and wings, cinereous lead-colour, each feather marked with a long slender line of black down the shaft; greater quills black; the inner webs marked with many oblong white spots; those next the body are coloured like the back on the outer webs; the inner webs spotted as the others; the two first feathers are much indented towards the point of the inner web, as if cut with a pair of scissars; the third feather rather exceeds the second in length, and is the longest; the throat is nearly white; breast, belly, sides, and thighs, ferruginous, streaked with dusky, vent and under tail coverts pale ferruginous; the under wing coverts are rufous-brown, with round white spots on each web; tail like the back, crossed with six or seven bars of black; the end black for almost an inch, slightly tipped with white; legs yellow; claws black.

The above description is taken from the birds now before us; but these birds seem to vary a little in the markings. Mr. Pennant observes, the bars on the tail are generally from thirteen to fifteen in number; but remarks that in one specimen there were only eight.

The male above described was recently taken alive in a trap-cage hung in a passage of a house, in which there was a bullfinch; and, what was extraordinary, it had lost an eye. We kept it alive for some time, and found it extremely docile; and what was remarkable, it would drink freely whenever water was offered it, and shewed signs of distress when long kept without it. This remarkable thirst, so unusual in predacious birds, which we have kept for years without their ever attempting to drink, was certainly occasioned by fever, for it died of an inflammation on its lungs.

The Merlin is exceedingly rapid on the wing, and was used formerly

in falconry, being esteemed for its courage, though inferior in size. The female will kill a partridge at a single pounce; but the male is contented with humbler game. The wing of this species is not so long and pointed as that of the hobby; when closed it does not reach to the end of the tail by an inch and a half. It flies low, and is generally seen skimming along the side of a hedge, or over the surface of the ground, in pursuit of small birds. This bird visits the south of England in October, about the time the hobby retires, but it has never been observed to breed further south than Cumberland, where, Dr. Latham informs us, it has been found more than once with four young ones, placed on the ground. In the middle of a high clump of heath, upon the moors in Northumberland, we found three young ones, about half grown, but no nest. They were well concealed, and could not have been discovered but by a setting dog making a point at them. The eggs are said to be of a plain chocolate colour, and an instance has been known of the birds depositing them in a deserted crow's nest.

*Temminck says they inhabit forests and mountains, building their nests in trees or on shelving rocks. Selby says, he has often met with their nests, not in this situation, but in extensive upland moors, placed upon the ground, amongst the heather.

The female, and immatured male Merlin has been described by various authors under the name of the Stone Falcon, as a distinct species.* One shot at Osberton, and which proved to be a male, is thus described by Mr. Foljambe:—"Length of the bird in question is about twelve inches; bill lead-colour; cere and irides yellow; the feathers on the crown and back of the head, brownish cinereous, with black shafts; throat cream colour, with very narrow brown streaks; forehead cream colour, extending in a very narrow line over the eyes; cheeks, back of the neck, and breast, rufous, with longitudinal spots of brown; thighs pale rufous, with a few very narrow brown lines pointing downwards; the back, scapulars, and wing coverts bluish-cinereous, with black shafts to the feathers; the prime quills have their inner webs marked with six large white spots, the base edged with white; the outer web of the first feather is scolloped with white; the second and third feather the longest; the wings when closed reach within an inch of the end of the tail; the tail is bluish-cinereous, with four black bars, that at the end an inch in breadth, the others narrower; the tip white; the under side of the tail white, barred as above; the legs and toes yellow and slender."

Mr. Foljambe is in possession of another of this species which he suspects to be the female, but as it came to him in a dried state, this important object could not be ascertained. It is a trifle larger than the other, and the throat is plain; the outer web of the first quill is white,

and the tail has only one black bar, about half an inch in breadth at the end, with the tip white. In every other respect it resembles the last described.

MEROPS (Linnæus.)—*Bee-eater, a genus thus characterised. Bill rather long, slightly curved, sharp pointed, somewhat quadrangular, and keeled; nostrils at the sides of the base, oval, open, and in some species partly hidden by reflected bristles; legs having the shank short; toes three before and one behind, the outer being joined to the middle one as far as the second joint; the inner one the same as far as the first joint; claws small, that of the hind toe the smallest; wings, the first quill very short, the second the longest in the wing. One species only has been observed as a straggler in Britain.*

MERULIDÆ (Vigors.)—*The Thrush kind; a family of the Perchers, (*Insessores*, Vigors.)*

MEW.—A name for the Gull (*Larus canus*) in its immature plumage.

MIDDLE SPOTTED WOODPECKER.—A name for the Crank Bird.

MIGRATION.—The migration of birds is a curious fact which no one denies, though we have not wanted for incredulous persons who believed the nightingale was to be found in every hedge during winter. That an accidental summer bird of passage may be, by disease, prevented from returning to its natural winter quarters, we can admit; because there are variety of instances of the swallow and martin having been seen flying in the months of November and December, roused, probably, from a state of torpidity, by an unusual warmth of the air. So also there are instances of some of our winter migrants remaining with us the whole summer. The woodcock's eggs and young have many times been taken in our woods; but these are individual occurrences only, occasioned by accident. If all the migrative species did actually reside with us the whole year, whether in a torpid state or not, we should have daily productions of the fact; and yet, in the various historic pages of this country, very few instances have been related, that had the appearance of authenticity, of the torpidity of any of our summer migrants; and such appear to be only of the swallow tribe. Torpidity is probably the state of those summer birds of passage which accident may have detained with us during winter; similar to the hedgehog, the dormouse, and bat. These become inanimate when the thermometer sinks within ten degrees of the freezing point, as their animal heat keeps pace with the temperature of the air at that time. That our summer migrants come from the south, or warmer climate, and our winter migrants from the north, or colder climate, there

is no doubt; but by what rule this is performed, is difficult to determine, especially as we have reason to believe the same bird will return for many years together to the same spot; and yet, why is this more to be wondered at than the performance of a carrier pigeon, or the labouring bee, which returns with certainty to its well-known hive? But what is the more extraordinary part in the history of our summer migrants is, that the males always precede the other sex in their vernal flight; from what cause this is produced we cannot determine, though it is certain the male is no sooner arrived than he feels the impulse of love; for, if the weather is warm, he is incessant in his call, or song. [See SONG OF BIRDS.]

MILVUS (AUCTORES.)—*A genus thus characterised. Bill of mean length, weak, somewhat angular above; shanks short; shins plated with scales; wings very long; the fourth quill the longest; tail forked. (VIGORS.)*

MINUTA GALLINULA.—A name for the Little Gallinule.

MINUTE MERGANSER.—The young of the Smew.

MIRE CROW.—A name for the Laughing Gull.

MIRE DRUM.—A name for the Bittern.

MIRE SNIPE.—A name for the Snipe.

MISSEL THRUSH (*Turdus viscivorus*, RAY.)

*Turdus viscivorus, *Linn.* Syst. 1. p. 291.—*Gmel.* Syst. 1. p. 806.—*Lath.* Ind. Orn. 1. p. 326. 1.—*Raii*, Syn. p. 64. A. 1.—*Will.* p. 137. t. 36.—Turdus major, *Briss.* 2. p. 200. 1.—La Draine, *Buff.* Ois. 3 p. 295. t. 19. f. 1.—*Ib.* pl. Enl. 489.—Merle Draine, *Temm.* Man. d'Orn. 1. p. 161.—Mistel Drossel, *Meyer*, Tasschenb. Deut. 1. p. 191.—*Bechst.* Tasschenb. Deut. 3. p. 324.—Missel-Thrush, Br. Zool. 1. No. 105.—Arct. Zool. 2. p. 341. 8.—*Will.* (Angl.) p. 187. t. 36.—*Lewin's* Br. Birds, 2. t. 57.—*Lath.* Syn. 3. p. 16. 1.—*Mont.* Orn. Dict. and Supp.—*Bewick's* Br. Birds, 1. 96. and Supp.—*Flem.* Br. Anim. p. 64.*—*Walc.* Syn. 2. t. 197.—*Albin*, 1. t. 33.—*Pult.* Cat. Dorset. p. 10.—*Selby*, pl. 44. fig. p. 150.

Provincial.—Throstle-cock. Screech or Skrietch Thrush. Holm Thrush. Misseltoe Thrush.

This is the largest species of Thrush; weight near five ounces; length eleven inches; the bill is dusky; the base of the lower mandible yellowish; irides hazel. The whole upper parts of the bird are of a light brown, a little inclined to rufous on the rump; sides of the head and throat yellowish white, spotted with brown; from thence to the vent white; the breast marked with triangular spots, belly and sides with roundish ones of a dusky colour; the two largest series of wing coverts are tipped with white; quills brown, dashed with cinereous on the outer webs; tail the same; the three or four outer feathers tipped with white, and the inner web of the exterior one almost white; legs are of a light colour, inclining to yellow.

There is very little difference in the plumage of the sexes, but the female is not quite so bright in colours.

The Missel Thrush is by no means plentiful in England, and seems to be less so in winter. It begins to sing in January, if the weather is mild, but ceases so soon as the thermometer sinks below forty degrees. About the middle of March it makes a nest in the fork of some tree, especially such as are covered with white moss, particularly apple-trees; frequenting orchards more than any other place in the spring, and never building in a bush.

"The ingeniously constructed nest of the Missel Thrush, has as usual been little attended to by systematic ornithologists. "It builds," says Willughby, "a nest as a jay, commonly with rotten twigs on the outside, and the inside with dead grass, hay, or moss, which he pulls from trees." They construct both the inside and the outside, according to Buffon, with herbage, leaves, and moss, especially the white moss, and their nest resembles more that of the blackbird than of the other thrushes, except its being lined with bedding. "The nest," says Atkinson, "is composed of lichen and coarse grass, and lined with wool." They might as well have described an orange as composed of the rind and the pips; or the Missel Thrush itself as made up of feathers and stomach, without taking any notice of its bones and flesh; for it is not only a basket-maker, but a mason; and after it has reared a rough scaffolding of the withered stems of plants, dry grass, and moss, which are placed in great quantity, and with little art, it constructs a substantial wall of clay, of which none of the authors just quoted take the least notice, and we are thence entitled to infer that none of them had seen or examined the nest they undertook to describe. The masonry is not much better finished than the scaffolding, being inferior perhaps to that of the blackbird, and decidedly so to that of the song thrush (*Turdus musicus*); but the rudeness of the scaffolding, and the clay walls built upon it, is amply compensated by the ingenious basket-work by which these are subsequently concealed. The nest itself is usually placed in the fork of a tree, such as the pine in wilder districts, or an apple-tree in an orchard, the chief condition being that it should be plentifully surrounded with the larger leafy lichens, such as *Borrera furfuracea*, *Peltidea scutata*, *Ramalina fraxinea*, *&c.*, Acharius. Without detaching these from the trees, the bird artfully interweaves them into the contour of the nest, so as partly to conceal the basket-work of fine hay, which is wrought in at the same time, and interwoven with much nicety, both around the brim, and also over the clay, on the outside of the nest farthest from the tree; the lichens and other moss have only one of their ends

plaited into the basket-work, the outer being left so as to hang down after the manner of the thatch on a haystack, or rather the fern leaves used by gardeners to protect early wall fruit. I have specimens, however, of several of these nests, which have not a particle of moss or lichen about them, but are basketted with roots, hay, and pieces of wood shavings from the carpenter's shop, the lining being of dried grass, neatly fixed into the contour of the nest.[1] *

The eggs are four or five, and very rarely six in number, of a flesh-colour, marked with deep and light rust-coloured spots; their weight something more than two drams; the song is much louder, and very superior to that of the thrush; frequently perching upon the uppermost branch of a tall tree, it sings while the female is making her nest, and during incubation, but becomes silent as soon as the young are hatched, and is no more heard till the following year. If the young are taken, it continues as before, and if the female is destroyed, it continues in song during the whole summer. This experiment we have tried upon this and several other song birds, and always found it invariable.

* Mr. Knapp seems to entertain a very different opinion of the vocal powers of this bird. "The approach of a sleety snow storm, following a deceitful gleam in spring," says he, "is always announced to us by the loud untuneful voice of the Missel Thrush, as it takes its stand on some tall tree, like an enchanter calling up the gale. It seems to have no song, no voice, but this harsh predictive note, and that in great measure ceases with the storms of spring." This has called forth remarks from several anonymous writers in the Magazine of Natural History, one of whom asserts that this harsh note is only uttered when alarmed, or when it pursues the redwing, fieldfare, and blackbird, whom it attacks, he says, without mercy. *

The Missel Thrush is a very bold bird during the breeding season, drives all others from the neighbourhood of its nest, and will even attack the magpie and jay. Its food, like the other species, is insects and berries, particularly that of the misseltoe, which it has been erroneously supposed necessary to pass through the body of this bird, to make it vegetate. That the seed of the berry will propagate after passing the organs of digestion, is no more wonderful than that corn should grow when voided whole by a horse. But such a preparation is no more necessary in the one than in the other, but may be considered as one of the methods nature takes to disperse the seeds of various plants.

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[1] Architecture of Birds. Chap. on Basket-making Birds, p. 211.

MITTY.—A name for the Petrel.

MOCK BIRD.—* A name applied to the Sedge Bird.

MOCK NIGHTINGALE.—* A name sometimes given to the Blackcap, and sometimes to the Fauvette.*

MONCK.—A name for the Bullfinch.

MOOR BUZZARD (*Circus æruginosus*, ALDROVAND.)

ADULT.

* Falco rufus, *Lath.* Ind. Orn. 1. p. 25. 51.—*Gmel.* Syst. 1. p. 266. 77.—Circus æruginosus, *Vigors*, Zool. Jour. 1. p. 339.—Circus rufus, *Briss.* Orn. 1. p. 404. —Circus palustris, *Briss.* 1. p. 401.—Buteo æruginosus, *Flem.* Br. Anim. p. 55. —La Harpaye, *Buff.* Ois. 1. p. 217.— *Ib.* pl. Enl. 460.—Busard Harpaye, ou de marais, *Temm.* Man d'Orn. 1. p. 69. 2nd edit.—Brandweihe, *Bechst.* Tasschenb. Deut. p. 24. sp. 19.—Harpy Falcon, *Lath.* Syn. 1. p. 51.

YOUNG.

Falco æruginosus, *Linn.* Syst. 1. p. 130.—Fauna Suec. No. 66.—*Gmel.* Syst. 1. p. 267.—*Lath.* Ind. Orn. 1. p. 25. 53.—*Raii*, Syn. p. 17. A. 4.—*Müller*, No. 69. —Falco arundinaceus, *Bechst.* Naturg. Deut. 1. p. 681. 19.—Le Busard de marais, *Buff.* Ois. 1. p. 218.—*Ib.* pl. Enl. 424. a yearling bird.—Sumpfweihe, *Meyer*, Tasschenb. Deut. 1. p. 43.—Moor Buzzard, Br. Zool. 1. No. 57. t. 27. *Ib.* fol. p. 67. t. A. 5.—Arct. Zool. 2. p. 225. L.—*Lath.* Syn. 1. p. 54.—*Ib.* Supp. 15.—*Mont.* Orn. Dict. 2. —*Will.* (Angl.) p. 75. t. 7.—*Lewin's* Br. Birds, 1. t. 8.—*Walc.* Syn. 1. t. 8.—*Pult.* Cat. Dorset, p. 3.—*Bewick's* Br. Birds, 1. p. 19.—*Selby*, pl. 9. p. 24.

Provincial.—Duck Hawk. White-headed Harpy. Moor Buzzard.*

The specimen now before us of this species of falcon, is a female; its weight twenty-eight ounces and a half; length twenty-three inches and a half; bill black; cere and irides yellow. The whole plumage is of a chocolate brown, tinged more or less with ferruginous; the crown of the head is of a dull yellow; legs long and yellow; claws black. The male is somewhat less, weighing about twenty-one ounces; length twenty-one inches; plumage the same, but generally brighter in colour.

These birds are subject to some variety in markings: sometimes the crown of the head is white; others have the whole head white, or yellowish; the shoulders are said to be sometimes yellow; and we have seen a specimen with the head, part of the wing coverts, and the four first quill-feathers, white. These markings are considered as mere varieties, as some are said to be found wholly of a chocolate-brown: such, however, are by no means so common as those with a yellow crown, or of various shades of that colour to white. In more than twenty specimens we have examined, this was the constant mark, except as above described.

This species appears to be local, mostly frequenting swampy moors and barren situations; and though rarely met with in the more cultivated parts, it is the most common of the falcon tribe about the sandy flats on the coast of Caermarthenshire, where they prey upon

young rabbits; and we have seen no less than nine feeding at one time upon the carcass of a sheep.

It will sometimes feed on frogs, lizards, worms, and even the larger insects. The nest is most frequently made on the ground, amongst short wood, furze or fern. It is composed of sticks, rushes, or coarse grass; sometimes, though rarely, it builds in the fork of a large tree. In both these situations we have found the nest with eggs. These are perfectly white, without any spots, considerably less than those of the common buzzard. It is by no means a bird of rapid flight, and, therefore, pounces its prey on the ground; for which purpose it is generally seen skimming over the surface of the ground, like the ringtail. It is said to prey on fish, occasionally, and on young ducks and other waterfowl; from which circumstance it has, in some parts, obtained the name of duck hawk. In the breeding season, when the female is sitting, the male will soar to a considerable height, and remain suspended on wing for a great length of time.

MOOR COCK.—A name for the Moor Fowl.

MOOR COOT and MOOR HEN.—Names for the Gallinule.

MOOR FOWL (*Lagopus Scoticus*, LATHAM.)

* Tetrao Scoticus, *Lath.* Ind. Orn. 2. p. 641. sp. 15.—Bonasa Scotica, *Briss.* 1. p. 199. 5. t. 22. f. 1.—Tetrao Lagopus, var. γ and 8. *Gmel.* Syst. 1. p. 750.—Lagopus Scoticus, *Flem.* p. 43.—Poule de Marais Grous, *Cuv.* Reg. Anim. 1. p. 450.—Tetras rouge, *Temm.* Man. d'Orn. 1. p. 450.—Tetrao Saliceti, æstate, *Temm.* Man. d'Orn. 1st. ed. only.—Tetras des Saules, *Temm.* Pig. et Gall. 3. pl. 9. f. 5.—Red Game, Moor-Cock, Gor-Cock, *Raii*, Syn. p. 54. A. 3.—*Will.* (Angl.) p. 177.—*Albin*, 1. t. 23. 24.—Red Grous, Br. Zool. 1. No. 94. t. 43.—*Lath.* Syn. 4. p. 746. 13.—*Ib.* Supp. p. 216.—*Walc.* Syn. 2. t. 183.—*Bewick's* Br. Birds, 1. p. t. 301.—*Low's* Faun. Orcad. p. 51.—*Selby*, pl. 59. fig. 1. p. 307.

This species weighs about twenty ounces; length sixteen inches. Bill black; irides hazel; above the eye is a scarlet fringed membrane bare of feathers. The nostrils are covered with black and ferruginous feathers; the head and neck pale tawny, spotted black; breast and belly dull purplish-brown, crossed with numerous narrow dusky lines; quills dusky; the tail consists of sixteen feathers; the four middle ones are barred with tawny-red, the rest black; legs covered with soft whitish feathers down the claws, which are of a light horn-colour, broad and concave underneath.

The female weighs about sixteen ounces; the colour not so dark as in the male.

This bird is only to be met with in the extensive uncultivated wastes covered with heath, particularly the most mountainous situations; being driven from the south by cultivation. The mountains of Wales are now the most southern parts these birds are found in; they are not uncom-

mon in Yorkshire, and from thence northward upon the moor lands; but no where so plentiful as in the highlands of Scotland, where the moors are unbounded.

It is also found on the western islands, and in the mountains and bogs of Ireland; but it is remarkable that these birds should seem to be confined to these kingdoms. Linnæus did not seem to be acquainted with the species, and Gmelin has given it as a variety of the ptarmigan. Buffon speaks of a white variety which he names L'Altagas blanc, and says it is found about the mountains of Switzerland, and those of Vicenza. But there is little doubt this is the ptarmigan.

The Moor Fowl never resort to woods, but confine themselves wholly to the open moors, building their nests—if a few withered stems, placed carelessly together, deserve that appellation - in a tuft of heath; they feed on the mountain and bog berries, and, in defect of these, on the tops of the heath.

It lays from eight to fourteen eggs, much like those of the black cock, but smaller. The young keep with the parent birds till towards winter, and are called a pack or brood; in November they flock together in greater numbers, sometimes thirty or forty, where they are plentiful, at which time they are extremely shy, and difficult to be shot.

We never remember but one instance of its being found at a distance from the moors. This was a female, taken alive near Wedhampton, in Wiltshire, in the winter of 1794, and communicated by the late Edward Poore, Esq., who shewed us a part of the bird. By what unaccountable accident it should have been driven to so great a distance from its native moors, is difficult to say, as the nearest place to this which they are known to inhabit is the south of Wales, a distance in a straight line not less than sixty miles.

*In severe winters moor game comes lower down the mountains in Scotland, and they flock together in prodigious numbers; in 1782 and 1783, according to Thornton, three or four thousand assembled. The same author, in his sporting marches, encamped at the source of the Dalmon, at the foot of an immense hill, called Croke Franc. "The game on these moors," says he, "is innumerable. In a mile long, and not half a one broad, I saw at least one thousand brace of moor game." Such days of plenty will scarcely ever be seen again; since the communication between the two countries has been facilitated by good roads, ready conveyance, and excellent accommodation, parties have been continually formed in England to make sporting tours in the Highlands of Scotland, and slaughter is the word. Daniel informs us that, at Mr. Grierson's, of Rathfarnham, county of Dublin, in 1802, a brace of Moor Fowl,

which had been confined for three years, hatched a brood of young. He also says, they have bred in the menagerie of the Duchess Dowager of Portland.

As a further and more recent proof that this bird will breed in confinement, Lord Stanley assures us that a pair of grous, which had been confined two years by a person who paid little attention to them, had produced many eggs. This circumstance made his Lordship desirous to obtain the birds, in which he succeeded. and in 1811 the female laid ten eggs, which she incubated, and brought out eight young. These infant birds, from some unknown cause, probably a defect of natural food at that tender age, did not live many days. The old birds feed on grain and oatmeal, like others of the gallinaceous tribe. They were remarkably shy, and as little disturbed as possible, in order to induce them to breed again. If ants' eggs, grasshoppers, and other insects, cannot be procured in sufficient abundance, alum-curd, or hard-boiled egg, as animal food, is perhaps as good a substitute for insects as can be administered, and we recommend it to all persons who wish to rear any young birds of a similar nature. But if grasshoppers can be obtained, they are eagerly devoured, and for the first month the best food that can be given.

A mottled brown and white variety, very much resembling the summer plumage of the ptarmigan, was shot in Lancashire, in the month of August, by Lord Stanley. And several other varieties are mentioned by Selby, of a cream or light grey colour, more or less spotted with dark brown and black.

This species is more of a true ancient Briton than any other of which we can boast, and as such it ought to be protected and revered; for, strange as it may seem, it does not appear to have found its way to any other part of the world, but is exclusively of British origin, and continues wholly attached to the British Empire. Inhabiting the most dreary and inhospitable parts of the three United Kingdoms, contented with the native produce of such uncultivated regions, it never by choice approaches the habitation of man, to riot in the fruits of his labour. It has not even extended into the Shetland island, but has reached the Orkneys, its utmost extent northwards.*

MOOR TITLING.—A name for the Chickstone.

MORILLON.—A name for the Golden-Eye.

MORROT.—A name for the Guillemot.

MOTACILLA (Latham.)—* Wagtail, a genus thus characterised. Bill slender, straight, awl-shaped, keeled, notched, and describing an angle upon the forehead; cutting edges (*tomia*) of both mandibles

slightly compressed inwards, about the middle; forehead low and depressed; nostrils at the sides of the base oval, and partly concealed by a naked membrane; shank considerably longer than the middle toe; toes, three before and one behind, the outer being joined at its base to the middle one; hind claw strong, and sometimes of considerable length; wings having the first quill very short, the second the longest in the wing; the one of the greater coverts being as long as the quills; tail very long, and generally square at the end.*

MOTHER CARY'S CHICKENS.—A name for the Petrel.

MOUNTAIN COCK.—A name for the Capercalzie.

MOUNTAIN BUNTING and MOUNTAIN FINCH.—Names for the Snowfleck.

MOUNTAIN LINNET.—A name for the Twite.

MOUNTAIN MAGPIE.—A name for the Popinjay.

MOUNTAIN OUZEL.—A name for the Ring Blackbird.

MOUNTAIN SPARROW.—A name for the Tree Sparrow.

MOUSE HAWK, or OWL.—A name for the Hawk Owl.

MUGGY.—A name for the Whitethroat.

MUMRUFFIN.—A name for the Bottle Tit.

MURDERING BIRD.—A name for the Butcher Bird.

MURRE.—A name for the Razor Bill and the Guillemot.

MUSCICAPA (Linnæus.)—*Fly-catcher, a genus thus characterised. Bill of mean length, somewhat triangular, depressed at the base, strong and compressed towards the tip, which is bent downwards, and with both mandibles with a small notch; base of the bill beset with strong bristles; nostrils at the sides of the base oval, and partly concealed by feathers; legs with the shank as long, or rather longer than the middle toe; toes, three before and one behind, the side ones of equal length, the outer one joined at its base to the middle toe; wings with the first quill very short, the second shorter than the third and fourth, which are the longest in each wing.

Two species, the Beam-bird and the Pied Fly-catcher, are British.*

MUSCICAPIDÆ (Vigors.)—*Fly-catchers, a family of perching birds (*Insessores*, Vigors.*)

Night Heron.

NATATORES (Illiger.)—* Swimmers, water birds with webbed feet.*

NESTS.—* Nests have been so little attended to by systematic writers, that the most vague and inaccurate descriptions of them are usually given. In my little work on the Architecture of Birds, I have endeavoured to supply in part what was wanting on this subject; and in my additions to the articles in this Dictionary, Nests form a prominent feature.*

NETTLE CREEPER and NETTLE MONGER.—*Names applied to the Whitethroat, the Fauvette, and birds of similar habit; but not usually, I believe, to the Blackcap, as stated in books.*

NICTITATING MEMBRANE.—*A thin sort of elastic skin, which birds have the power of drawing over their eyes, as we do our eyelids, for the purpose of moistening the eye-ball, and defending it from injuries, and particularly for modifying excessive light.*

NIDIFICATION.—* An Anglo-Latin word, which means Nest-building.*

NIGHT CROW.—A name for the Nightjar.

NIGHT HAWK.—A name for the Nightjar.

NIGHT HERON (*Nycticorax Europæus*, Stephens.)

* Ardea Nycticorax, *Linn.* Syst. 1. p. 235. 9.—*Gmel.* Syst. 2. p. 624.—*Raii*, Syn. p. 99. 3.—*Will.* p. 204. t. 49.—*Lath.* Ind. Orn. 2. 6. 8. 13.—*Briss.* 5. p. 493. 45. t. 39.—*Ib.* 8vo. 2. p. 341.—*Temm.* Man. d'Orn. 2. p. 577.—*Gerard.* 2. p. 145.—Le Bihoreau, *Buff.* Ois. 7. p. 435. t. 12.—Der Nacht Rheigher, *Bechst.* Naturg. Deut. 4. p. 54.—*Meyer*, Tasschenb. Deut. 2. p. 339.—Sgarza Nittecora Stor degli ucell. 4. p. 422.—Blaautrekwak, *Sepp*, Vög. Neder, 2. t. p. 151.—*Naum.* Vög. Deut. t. 26. f. 35.—*Frisch*, *Ib.* t. 203.—Night Heron, or Night Raven, Arct. Zool. 2. No. 356.—*Will.* (Angl.) p. 279. t. 49.—*Albin*, 2. t. 67.—*Lath.* Syn. 5. p. 52.—*Ib.* Supp. p. 234.—*Lewin's* Br. Birds, 4. t. 145.—*Walc.* Syn. 2. t. 126.—*Wilson's* Amer. Orn. 7. p. 101. 612.

FEMALE.

Ardea Grisea, *Linn.* Syst. 1. p. 239. 22.—*Gmel.* Syst. 2. p. 625.—*Briss.* 5. p. 412. 9. t. 36. f. 1.—*Ib.* 8vo. 2. p. 317.—Chestnut Heron, *Lath.* Syn. 5. p. 73.

YOUNG.

Ardea maculata, *Gmel.* Syst. 1. p. 645. sp. 80.—Ardea gardeni, *Ib.* 1. p. 645. sp. 81.—Ardea badia, *Ib.* 1. p. 644. sp. 75.—Ardea grisea, *Ib.* 1. p. 625. sp. 9. B.—Spotted, Gardenian, and Chestnut Heron, *Lath.* Syn. 5. p. 70. and 71. 31. and 32. and 73.—Gardenian Heron, *Mont.* Orn. Dict.—*Wilson's* Amer. Orn. pl. 61. 3.*

Provincial.—Lesser Ash-coloured Heron.

The length of this species is twenty inches; the bill is strong, three inches and three quarters long, black, with the base yellowish; irides orange; lore, and round the eyes, green; the crown of the head is greenish black, extending a little way down the back of the neck; on the back of the head are three very narrow white feathers near six inches long, with their tips dusky; the hind part of the neck and sides are ash colour; upper part of the back dull green; the lower part, rump, wings, and tail, pale ash colour; the forehead and most of the body white; legs yellowish green; claws dusky.

The female is glossy brown on the head; the upper parts of the body the same, but tinged with grey; the hind part of the neck palest; the lower part of the back and rump almost grey; over the eye is a whitish streak; chin white; fore part of the neck grey, streaked with yellowish down the shaft of each feather; the rest of the under parts grey, becoming white at the vent; the wings are greyish brown, streaked with yellowish white; some of the greater coverts tipped with white; quill-feathers cinereous grey, mostly tipped with white; tail nearly the same; legs greyish brown. A specimen shot near London, in May, 1782, existed in the Leverian Museum; another, according to Lord Upper Ossory, was shot on the Ouse, near Ampthill, in 1791. Bewick mentions another, in the Wycliffe Museum, from which his figure was taken. A young one was shot near Thame, in Oxfordshire, by Lord Kirkwall.

*It will be perceived, by reference to our synonimes, that this has been divided into several species by authors, arising from the great difference between the adult male and female, and between these and the young in the first and second year's plumage. In this state it was described by Montagu as a distinct species, under the name of the Gardenian; and by Latham as the spotted Heron. It frequents the banks of rivers and lakes, margined with bushes of reeds and dwarf wood. It is plentiful in the temperate parts of Europe, but becomes more rare as you approach the North; in Holland it is found occasionally. It is also found in America. The nest is built on the ground, in brush wood, and very rarely among the reeds and rushes. Its food consists of fish, and it lays three or four eggs of a greenish colour.

NIGHTINGALE (*Sylvia Luscinia*, LATHAM.)

Motacilla Luscinia, *Linn.* Syst. 1. p. 328. 1.—*Gmel.* Syst. 2. p. 950.—*Raii*, Syn. p. 78. A. 2.—*Will.* p. 161. t. 41.—*Briss.* 3. p. 397. 13.—*Ib.* 8vo. 1. p. 420.—Curruca luscinia, *Flem.* Br. Anim. p. 69.—Sylvia Luscinia, *Lath.* Ind. Orn. 2. p. 506. 1.—*Temm.* Man. d'Orn. 1. p. 195.—Le Rossignol, *Buff.* Ois. 5. p. 81. t. 6. f. 1.—Nightingale, Br. Zool. 1. No. 154.—*Ib.* fol. 100. t. 8. 1. f. 2.—Arct. Zool. p. 416. A.—*Will.* (Angl.) p. 220. t. 41.—*Albin*, 3. t. 53.—*Symes*, Song Birds, t. p. 67.—*Lath.* Syn. 4. p. 408. 1.—*Ib.* Supp. p. 180.—*Lewin's* Br. Birds, 3. t. 99.—*Walc.* Syn. 2. t. 229.—*Pult.* Cat. Dorset. p. 8.—*Don.* Br. Birds, 5. t. 108.—*Sweet's* Br. Warblers, 5.—*Selby*, p. 172.

This species is about the size of the sky lark, but of a more slender and elegant form. Its weight is six drams; length near seven inches; bill brown; irides hazel. The head and upper parts of the body pale tawny; the under parts cinereous-brown; tail deep tawny-red; quills brown; the outer webs reddish brown; legs long, and of a light brown. The female is rather less, but in plumage both sexes are nearly alike.

This is the largest species of the warbler genus; it appears with us sometimes in April, but most commonly not till the beginning of May.

The females do not arrive till a week or ten days after the males; so that on the first arrival of these birds none but males are caught, which has given rise to a supposition that the proportion of males are greater than those of the other sex. But was this the case, those males who were not fortunate enough to procure a mate would sing all the summer through; whereas they are all silent by the latter end of June. If by accident the female is killed, the male assumes his song again, and will continue to sing very late in the summer, or till he finds another mate. This we have proved by taking the female on her nest, when the male assumed his usual vociferous notes, which attracted another female. In birds that pair, there is no doubt nature has given an equal proportion of both sexes; and yet, what is extraordinary and unaccountable, if either sex is destroyed before the great demand of nature is perfected,

the remaining sex generally finds a second mate. This we have observed in many species; and Mr. White, in his History of Selborne, remarks the same with respect to partridges.

The male Nightingale, as well as all the migrative species of warblers, never quit the place they first resort to, but attract the female by their song. It is probable, therefore, that such females who have not at first paired, or by accident lose their mate, are continually wandering in search of the other sex.

The local situation of this bird, as well as many others, is probably occasioned by a peculiarity of food, which may be found in some places, and not in others. It is said to be found only as far north as Yorkshire; and certainly not farther west than the eastern borders of Devonshire; although they are plentiful both in Somersetshire and Dorsetshire. Why they should not be found in all the wooded parts of Devonshire and Cornwall, which appear equally calculated for their residence, both from the mildness of the air and variety of ground, is beyond the naturalist's penetration. The bounds prescribed to all animals, and even plants, is a curious and important fact in the great works of nature. It has been observed, that the Nightingale may possibly not be found in any part but where cowslips grow plentifully; certainly with respect to Devonshire and Cornwall this coincidence is just.

This bird resides wholly in woods and thickets, and so concealed that it is seldom seen. It prepares a nest the latter end of May, of a very simple construction, made of dry leaves, generally of the oak, and lined with dry grass, usually placed on the ground amongst the same materials of which it is composed; so that it is not easily discovered. The eggs are four or five in number, of an uniform dark brown colour; those I have seen were dusky-green, rather larger than those of a hedge-chanter; their weight about forty-seven grains. As soon as the young are hatched its song ceases, and it is no more heard during the remainder of its stay with us. It is a mistaken notion that this or any of the later breeding birds have a second brood in the same season; and we may be assured, whenever a later brood than usual is found, some accident has befallen the rest.

We have before asserted that the song of birds is the effusion of love; and though there are some who frequently sing in the autumn, and even in winter, if the weather is mild, it does not follow that they have a nest; but their testes will always be found enlarged: these are only such as are early breeders, as the redbreast, wren, and woodlark.

"The croaking of the Nightingale in June and the end of May," says Knapp, "is not occasioned by the loss of voice, but by a change of note —a change of object. His song ceases when his mate has hatched her brood; vigilance, anxiety, caution, now succeed to harmony, and his croak is the hush, the warning of danger or suspicion, to the infant charge and the mother bird." This delightful songster is found very generally diffused throughout Europe, as far north as Sweden, in the greater part of Asia, and has also been found on the banks of the Nile. Its favorite haunts are close thickets overgrown with brush and underwood; there, in the calm of a summer's evening, he delights to

> "Warble his delicious notes,
> As he were fearful that an April night
> Would be too short for him to utter forth his love chant."

Bechstein says, that the Nightingale has a strong predilection for the spot where he has first taken up his abode, and will return year after year to the same place, until the grove which gave him shelter has been cut down, and even then he will choose another station as near to it as possible. They generally return to Germany, from their annual migration, about the middle of April, about the time the hawthorn begins to shew its blossoms, and again, about the middle of August, they prepare for their departure; this is done very quietly, and without noise or confusion, passing on by degrees from thicket to thicket towards the end of their journey, so that by the middle of September they are no longer found in that country. In Italy they arrive in the month of March, and begin to retire in the same way about the beginning of November.

NIGHTJAR (*Nyctichelidon Europæus*, Rennie.)

* Caprimulgus europæus, *Linn.* Syst. 1. p. 346. 1.—Faun. Suec. No. 274.—*Gmel.* Syst. 1. p. 1027.—*Lath.* Ind. Orn. 2. p. 584. 5.—*Raii*, Syn. p. 26. A. 1.—*Will.* p. 70. t. 14.—*Briss.* 2. p. 470. 1. t. 44.—Caprimulgus punctatus, *Meyer*, Tasschenb. Deut. 1. p. 284.—L'Engoulevent, *Buff.* Ois. 6. p. 512.—*Ib.* pl. Enl. 193.—L'Engoulevent ordinaire, *Temm.* Man. d'Orn. Tagschlafer.—*Bechst.* Naturg. Deut. 3. p. 940.—*Frisch*, t. 100.—Geitemelker, *Sepp.* Nederl, Vög. 1. t. p. 39.—Nocturnal Goatsucker, Br. Zool. 2. No. 173. t. 59.—European Goatsucker, Arct. Zool. 2. p. 437. A.—*Will.* (Angl.) p. 107.—*Albin*, 1. t. 10.—*White's* Hist. Selb. p. 62. 94.—*Lath.* Syn. 4. p. 593. 5.—*Ib.* Supp. p. 194.—*Lewin's* Br. Birds, 3. t. 127.—*Mont.* Orn Dict.—*Ib.* Supp.—*Pult.* Cat. Dorset. p. 13.—*Walc.* Syn. 2. t. 255.—*Don.* Br. Birds, 3. t. 67.—Nightjar, *Bewick's* Br. Birds, 1. p. t. 262.—*Selby*, pl. 42*. p. 136.

Provincial.—Dor-Hawk. Fern-Owl. Night-Hawk. Jar-Owl. Churn-Owl. Wheel-bird.*

This species weighs between two and three ounces; length full ten inches. The bill is dusky and weak; mouth excessively wide, fur-

nished on each side with strong bristles, capable of diverging or contracting, by means of muscles attached to their roots; eyes very large; irides dusky. The plumage is beautifully diversified with black, brown, ferruginous and white, sprinkled and dashed with cinereous; the under parts are ferruginous brown, with numerous undulated transverse lines; the legs are very short, scaly, and feathered below the knee; the claw of the middle toe serrated on the inner edge.

The male has a large oval spot of white on the inner web of the three first quill feathers, and at the end of the two outmost tail feathers.

The female wants the white spots on the wings and tail; in other respects it is like the male. With us this bird is only a summer visitant, appearing about the middle of May, and departing again the latter end of September, or beginning of October. It is the only species found in Europe out of nineteen or twenty enumerated by different authors.

It makes no nest, but lays two eggs on the bare ground, amongst fern, heath, or long grass, sometimes in woods or furze; but at all times contiguous to woods, where it chiefly conceals itself by day. The eggs are larger than those of a blackbird, of an oblong oval, whitish, elegantly marbled with light brown and ash-colour. It generally sits on the ground, but if disturbed, frequently perches on the limb of a tree, most commonly lengthwise, not across, as is usual with most birds. In the dusk of the evening it begins its flight in pursuit of the larger insects, (particulary the cockchafer, *Melolontha vulgaris*, Fabr, and *Zantheumia solstitialis*, Leach, which rise from their earthy abode about that time.) Is also fond of the large-bodied moths; but few winged insects escape its wide-extended mouth.

*The use of the serrated middle claw of this bird was supposed by White of Selborne, to aid it in taking its prey.[1] Mr. Dillon, on the other hand, thinks that "its chief use is simply to comb out or dress the *vibrissæ*," or bristles which fringe the gape.[2] Mr. Swainson, in opposition to this, says, "there is an American group of this family which have no bristles round the bill, and yet have the serrated claws; and another group in Australia having bristles, and yet with the claw smooth and simple. The heron tribe, in like manner, have the gape (*rictus*) smooth, but have the claw serrated."[3]

"I was, I confess, disposed to think Mr. Dillon's account more plausible than true, and to agree with White and the learned arguments of Swainson, till I met with the following passage respecting the Caro-

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[1] Nat. Hist. Let. 47. [2] Mag. of Nat. Hist. iii. 33. [3] Ib. p. 188.

lina Nightjar: 'Their mouths,' says Wilson, 'are capable of prodigious expansion, to seize their prey with more certainty, and furnished with long hairs or bristles, serving as palisades to secure what comes between them. Reposing much during the heat of the day, they are much infested with vermin, (*Nirmi? Ornithomyiæ?*) particularly about the head, and are provided with a comb on the inner edge of the middle claw, with which they are often employed in ridding themselves of these pests, at least when in a state of captivity.'[1] This appears to settle the question."[2] "But again," says Mr. Swainson, "to suppose that nature has given to one or two families of birds the exclusive power of freeing themselves from an enemy, which in like manner infests *all* birds, is preposterous." Yet, though he smiles at my "simplicity," and alleges that I am "sometimes very unfortunate" in my "speculations,"[3] the simplicity must, in the present case, rest with himself; for if the pectinated claws are bestowed on the Nightjars and the herons to secure their prey, he ought, by his own argument, to be able to show that all birds which feed on similar prey, such as the swifts, have pectinated claws.

The Nightjar, it would appear, is the butt of innumerable mistakes; for though it feeds, like the bat, upon nocturnal moths and other night-flying insects, the small birds shew, by the attacks they make upon it, that they believe it to prey upon them, in the same way as they mistake the cuckoo for a hawk. The name also which it has received in all languages, of *Goat Sucker*, (most absurdly continued by systematic naturalists in the term *Caprimulgus*,) shews the opinion of it entertained by the vulgar. It is, however, as impossible for the Nightjar to suck the teats of cattle, (though most birds are fond of milk,) as it is for cats to suck the breath from sleeping infants, of which they are popularly accused; inasmuch, as the structure of their organs would baffle any such attempt. In another page we have shewn in what manner the bird has been mistaken for a cuckoo.*

The male makes a very singular noise during the period of cubation, not unlike the sound of a large spinning wheel, and which it is observed to utter perched, with the head downwards; besides which it emits a sharp squeak, repeated as it flies.

The Nightjar is most plentiful in the wild tracts of uncultivated

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[1] Amer. Orn. vi. 97. [2] J. Rennie in Mag. Nat. Hist. 296.
[3] Mag. of Nat. Hist. iv. 276.

land, interspersed with rocks and woods. We have seen in Scotland eight or ten on the wing together, in the dusk of the evening, skimming over the surface of the ground in all directions, like the swallow, in pursuit of insects, generally with its mouth fully extended; and as the bristles lining the edge of the upper mandible are capable of diverging or contracting by means of muscles attached to their roots, these also assist greatly in the capture and detention of its prey.

NIGHT RAVEN.—A name for the Night Heron.

NOPE.—A name for the Bullfinch.

NORIE.—A name for the Cormorant.

NORTHERN DIVER.—A name for the Loon.

NORTHERN DOUCKER.—A name for the Loon.

NORTHERN FALCON.—A name for the Ash-coloured Falcon.

NUCIFRAGA (Brisson.)—* A genus thus characterised. Bill long and straight, the upper mandible rounded, and longer than the lower one, both of them terminating in a slightly obtuse and depressed point. Nostrils in the base of the bill round, open, and covered by the reflected frontal bristles. Wings rather acuminated; the first quill short; the fourth being the longest in the wing. Shank longer than the middle toe. Feet with three toes before, and one behind. The outer toe joined to the middle one at its base.*

NUTCRACKER.—A genus of birds (*Nucifraga*, Brisson.)

NUTCRACKER (*Nucifraga Caryocatactes*, Brisson.)

*Nucifraga caryocatactes, *Briss.* 2. p. 59. t. 5. f. 6.—*Temm.* Man. d'Orn. 1. p. 117.—Corvus caryocatactes, *Linn.* Syst. 1. p. 157. 10.—Faun. Suec. No. 91.—*Gmel.* Syst. 1. p. 270.—*Lath.* Ind. Orn. 1. p. 164. t. 39.—*Raii*, Syn. p. 42. 5.—*Will.* p. 90. t. 20.—Caryocatactes nucifraga, *Nils.* Orn. Suec. 1. p. 90. sp. 42.—Le Casse noix, *Buff.* Ois. 3. p. 122. t. 9.—*Ib.* pl. Enl. 50.—Nussrabe, *Meyer*, Tasschenb. Deut. 1. p. 103.—Nutcracker, Br. Zool. App. t. 1.—Arct. Zool. 2. p. 252. D.—*Will.* (Angl.) p. 132. t. 20.—*Lewin's* Br. Birds, t. 40.—*Lath.* Syn. 1. p. 400. 38.—*Ib.* Supp. p. 82.—*Mont.* Orn. Dict.—*Ib.* Supp.—*Bewick's* Br. Birds.—*Walc.* Syn. 1. t. 36.—*Don.* Br. Birds, 4. t. 80.—*Flem.* Br. Anim. p. 88.—Nutcracking Crow, *Shaw's* Zool. 7. p. 353.—*Selby*, pl. 33. p. 84.*

This species is about the size of a magpie; length thirteen inches. The bill is two inches long, nearly straight, and black; irides hazel. The feathers that reflect over the nostrils are bordered with brown; upper part of the head and nape of the neck black; the general colour of the plumage rusty brown, marked with triangular white spots, which are larger on the under parts; the vent white; quills and tail black, the last tipped with white; legs black.

These birds are said to vary in size; and a variety is mentioned, spotted black and white. It is a rare species in England; four or five instances

only being on record: one shot in Flintshire, another in Kent, one seen in Bridgewater, in 1805; one shot in north Devon, in 1808, and seen in Northumberland in 1819. Most frequent in Germany; found also in Sweden and Denmark; and said to visit Burgundy in vast flocks.

The Nutcracker is said to lay up a store of acorns and nuts for winter; but we much doubt the fact, as no animal but such as become partly torpid in cold weather require such a provision. Such stores are most probably the collection of dormice, or some such animals, which being found by this bird is plundered. The same faculty is attributed to the jay and nuthatch; but they only rob the granary of mice, who frequently deposit their winter store in the hollow of a tree; such as beans, peas, corn, nuts, and acorns.

This bird, whose partial food seems to be the kernels of nuts, most probably breaks the shell in the manner of the nuthatch, by hacking a hole in it, or splitting the shell by reiterated strokes of the bill, for which that part seems better calculated than for cracking it by compression, as the grosbeak breaks the stones of the haw, whose bill is short and strong, and furnished with muscles of prodigious strength.

It is said in some parts to keep chiefly in the pine forests, probably for the sake of the seed of that tree. It is also said to make its nest in the hole of a tree, which it perforates, or at least it enlarges what has already been begun by the woodpecker: the bill seems not ill-suited to this purpose; its food consists of various insects and larvæ, which inhabit the bark of trees, also upon various kinds of fir and nuts. Is found common in the pine forests of Russia and Siberia, and all over Kamtschatka.

NUTHATCH (*Sitta Europæa*, Linnæus.)

Sitta Europæa, *Linn.* Syst. 1. p. 177.—Fauna Suec. No. 104.—*Gmel.* Syst. 1. p. 440.—*Lath.* Ind. Orn. 1. p. 261.—*Raii*, Syn. p. 47. A. 4.—*Will.* p. 98. t. 23.—Sitta cæsia, *Meyer*, Tasschenb. Deut. 1. p 128.—La Sitelle, ou Torchepot, *Buff.* Ois. 5. p. 460. t. 20.—*Ib.* pl. Enl. 623. f. 1.—Sitelle Torchepot, *Temm.* Man. d'Orn. 1. p. 407.—Kleiber, *Bechst.* Naturg. Deut. 2. p. 1061.—*Frisch*, Vög. t. 39.—Nuthatch, Br. Zool. 1. No. 89. t. 38.—*Will.* (Angl.) p. 142.—*Lewin's* Br. Birds, 2. t. 53.—*Albin*, 2. t. 28.—*Lath.* Syn. 2. p. 648.—*Ib.* Supp. p. 117.—*Mont.* Orn. Dict.—*Bewick's* Br. Birds, 1. p. 121.—*Pult.* Cat. Dorset. p. 5.—*Don.* Br. Birds, 4. t. 81.—*Flem.* Br. Anim. p. 81.—*Selby*, pl. 39. fig. 1. p. 113.

Provincial.—Nutjobber. Woodcracker.

This is the only species met with in England. It is about the size of a sparrow; length near six inches; weight rather more than six drams. The bill is about three quarters of an inch long, both mandibles equally convex, and a little compressed sideways; the upper one dusky, lower one whitish at the base; irides hazel. The crown of the

head and all upper parts of the body are of a bluish-grey; from the upper mandible through the eye is a black streak passing backwards down the neck; chin and cheeks whitish; breast and belly buff-colour; sides and thighs ferruginous-chestnut; quills dusky; under coverts of the tail white, margined with ferruginous; tail short, composed of twelve feathers, but not stiff, as in the woodpeckers; the two middle ones bluish-grey; the outer one is black, tipped with grey, separated by a white bar; the second nearly the same, but the spot of white is only on the inner web; the rest are black, more or less marked with a little grey and white at the ends; legs pale yellowish; claws large; the hind one very strong. The female is lighter colour beneath, especially about the sides and thighs.

The singular noise produced by some species of woodpeckers, by reiterated strokes of the bill against the decayed limb of a tree, has been erroneously ascribed to this bird by Dr. Plott.

It remains with us the whole year, but is a local bird, and not to be found in several parts of the kingdom. We have never observed it far north, nor so far west as Cornwall. It chiefly affects wooded and enclosed situations, choosing the deserted habitation of a woodpecker in some tree for the place of nidification. This hole is first contracted by a plaster of clay, leaving only sufficient room for itself to pass in and out. The nest is then made of dead leaves, most times that of the oak, which are heaped together without much order. The eggs are six or seven in number, white, spotted with rust-colour, so exactly like those of the oxeye in size and markings, that it is impossible to distinguish any difference. If the barrier of plaster at the entrance is destroyed when they have eggs, it is speedily replaced; a peculiar instinct to prevent their nest being destroyed by the woodpecker and other birds of superior size, who build in the same situation.

*It appears to me no less probable that the wall may be constructed to prevent the unfledged young from tumbling out of the nest when they begin to stir about; for all young birds of a certain age become very restless, and in the instance in question they might, if there was no barricade, find their way out, and be precipitated to the bottom of the tree.

M. Montbeillard tells us, that when they cannot find a hole in a tree to suit them, they hew out an excavation with their bills, if they can meet with a spot that is worm-eaten. Its manner of proceeding in this operation may be understood from the wedge-like form and abrupt termination of its bill, as is justly remarked by Mr. Swainson. A bird

of this species, which had been accidentally winged by a sportsman, was kept in a small cage of plain oak-wood and wire. During a night and a day that his confinement lasted, his tapping labour was incessant; and after occupying his prison for that short space only, he left the wood-work pierced and worn like worm-eaten timber. His impatience at his situation was excessive; his efforts to escape were unremitted, and displayed much intelligence and cunning. He was fierce, fearlessly familiar, and voracious of the food placed before him. At the close of the second day he sunk under the combined effects of his vexation, assiduity, and voracity. His hammering was peculiarly laborious, for he did not peck as other birds do, but grasping hold with his immense feet, he turned upon them as upon a pivot, and struck with the whole weight of his body, thus assuming the appearance, with his entire form, of the head of a hammer, or, as birds may sometimes be seen to do on mechanical clocks, made to strike the hour by swinging on a wheel.[1]

The Rev. W. T. Bree, of Allesley, informs us, that having caught a Nuthatch in the common brick trap used by boys, he was struck with the singular appearance of its bill, so unlike that of any bird he had ever seen. It was blunt at the end, and presented the appearance of having been truncated in an oblique direction, as if the natural beak had been cut off. He naturally inferred that it had been fairly ground down to about two-thirds of its original length, by the bird's pecking at the bricks, in its efforts to escape from the trap.[2] *

No persecution will force this little bird from its habitation when sitting; it defends its nest to the last extremity, strikes the invader with its bill and wings, and makes a hissing noise; and after every effort of defence, will suffer itself to be taken in the hand rather than quit.

The Nuthatch is more expert in climbing than the woodpecker, for it runs in all directions up and down a tree; whereas the other is never observed to descend. The stiff tail of those birds support them in the act of climbing and hacking, while the flexible tail of the Nuthatch gives it no such advantage, nor does it seem to want it, for its most favourite position, when breaking a nut, is with the head downwards. In the autumn it is no uncommon thing to find in the crevices of the bark of an old tree, a great many broken nut-shells, the work of this bird, who repeatedly returns to the same spot for this pur-

[1] Mag. of Nat. Hist. ii. 248.

[2] Mag. of Nat. Hist. i. 329.

pose. When it has fixed the nut firm in a chink, it turns on all sides in order to strike it with most advantage. This, with the common hazel-nut, is a work of some labour; but it breaks a filbert with ease. In defect of such food, insects and their *larvæ* are sought after amongst the moss on trees and old thatched buildings. It is commonly met with about orchards, and is sometimes seen in the cider season, picking the seeds from the refuse of the pressed apples.

The note is various; in the spring it has a remarkably loud, shrill, whistle, which ceases after incubating; in the autumn a double reiterated cry.

NUTJOBBER.—A name for the Nuthatch.

NYCTICHELIDON (Rennie.)—*Nightjar, a genus thus characterised. Bill very short, rather curved, broad and depressed at the base; the upper mandible bent at the point; gape very large, and extending as far as, or beyond, the hinder angle of the eyes; the base of the edge of the upper mandible in most or all the species fringed with strong moveable bristles, directed forwards; nostrils at the base, tubular, with a large prominent rim, clothed with very small feathers; wings long, the first quill shorter than the second, which is the longest in the wing; tail rounded or forked, of ten feathers; legs with the shank short; toes, three before and one behind; the fore ones united as far as the first joint by a membrane; the claw of the middle toe broad and serrated on the inner edge.

I have been induced to give a new name to this genus, solely because the old one, (*Caprimulgus,*) serves to propagate an absurd vulgar error.*

Osprey.

OAR COCK.—A name for the Water-rail.

OAT FOWL.—A name for the Snow-fleck.

OKE.—A name for the Auk, and for the Razor-bill.

OLIVACEOUS GALLINULE (*Gallinula Foljambei*, MONTAGU.)

*Gallinula Bailloni, *Temm.* Man. d'Orn. 2. p. 692.—*Flem.* Br. Anim. p. 99.—Supp. to *Mont.* Orn. Dict.

This species of Water-hen, was fortunately rescued by the hands of Mr. Foljambe, who discovered it in a poulterer's shop, early in the month of May, 1812, together with some other valuable birds, which had recently been received from the fens in Norfolk. The following description was originally taken from the bird when it was recently killed.

The weight was not noted; but the length is seven inches and a half; breadth ten inches and a half. The bill is nearly three quarters

of an inch long, of a greenish-yellow colour, the base red; irides and orbits bright red, inclining to orange; cheeks and forehead dusky cinereous; sides of the neck and throat pale cinereous; breast, belly, and thighs plain dark cinereous or slate-colour, like the water-rail, without spots or markings of any kind; the back of the head deep olive-brown; hind neck lighter, being of a yellowish-olive; the feathers of the back have a mixture of olive-brown and dusky-black, the margins being mostly of the former colour, with paler edges; scapulars dusky-black, with broad olive margins; coverts of the wings olive-brown; quills dusky, the outer webs edged with olive; rump and upper coverts of the tail very dark olive-brown, with a mixture of dusky-black; the feathers of the tail are of a deep dusky-brown, the shafts paler and the lateral ones margined with olive-yellow; vent and under coverts of the tail dusky-cinereous, some of the feathers deeply margined with sullied white; sides behind the thighs olive, slightly margined as the last; the legs, toes, and knees olive.

The tail, when examined by Mr. Foljambe, had only ten feathers; but this must be considered as accidental, as we believe all the species of this genus have invariably twelve feathers in that part when perfect. It is rather rounded at the end, the exterior feathers being half an inch shorter than the middle ones.

When this bird was first examined, it was suspected to be the Soree Gallinule, *Gallinula Carolina* of Index Ornithologicus, but except in size, it has no other characters of that bird, for all authors record that species as having a bare space on the forehead; a circumstance not unusual in several of the genus, exemplified in the common Gallinule. The face round the bill, the chin, and part of the neck before, is in the Soree black. Mr. Pennant says, the greater part of the front of the neck is deep black; the belly and sides dirty white, the latter barred downwards with black.

Highly laudable as it is, to avoid a useless multiplication of species, yet we must not conclude the subject is exhausted, and that new objects are not to be found, even within our own limited sphere. Some of the aquatic birds belong equally perhaps to the north of both the American and European continents, as the distance between these two quarters of the globe is there not very distant, or at least is in a manner connected by an extended chain of islands that may favour an interchange; but we must consider, that whatever migrations take place from the higher latitudes of either country, on the approach of the rigorous season they are performed over land, or coastwise southerly, each in their respective country, which could not be the case

with this species, and the short wings of this certainly render it equally improbable that it could be the Soree Gallinule.

Strange as it may appear, that a bird so ill calculated for migration should be for the first time discovered in a country so populous and so cultivated, and where the science of natural history is more generally diffused in the present era than in any part of the world; yet it is probable that the Foljambean Gallinule may hereafter be found to breed in the fens of the eastern parts of Great Britain. It is more than probable the bird in question would be mistaken for the water-rail, by the generality of sportsmen who might meet with it, and consequently may have frequently been consigned to oblivion, for want of the eye of the naturalist, and the rescuing hand of science.

The habits of the smaller species of Gallinules, are their principal security; they are equally capable of diving and concealing their bodies under water, with only the bill above the surface to secure respiration, and to run with celerity and conceal themselves amongst the rushes and flags of swampy places, from which they are with great difficulty roused, even with the assistance of dogs, depending more on concealment in thick cover, than upon their wings, to avoid danger, which combine to keep these species of birds in obscurity.

It is somewhat remarkable that this hitherto concealed species should be discovered in different quarters at the same time, Mr. Plasted, of Chelsea, having procured another specimen on the banks of the Thames, about the same time with Mr. Foljambe, which prevents its being considered as a *lusus* variety of any other species. About seven years after, another specimen was named Gallinule Bailloni, after M. Baillon, the coadjutor of Buffon, by Temminck, who describes it as haunting the banks of rivers and lakes, in many provinces of France, and in the whole of Italy. Its nest, he adds, is formed near the water, generally laying seven or eight eggs, of the shape of an olive, and of a brownish-olive colour, while its principal food consists of insects, snails, water-plants, &c.*

OLIVE.—A name for the Oyster Catcher.

OLIVE TUFTED DUCK.—A name for the Golden Eye.

ORANGE-LEGGED HOBBY (*Falco Rufipes*, Bechstein.)

Faucon, *Temm.* Man. d'Orn. 1. p. 33.—Falco Rufipes, *Beseke.* Vög. Kurlands, p. 13. 14. male and female.—*Bechst.* Tasschenb. Deut. 2. p. 39.—*Meyer*, Tasschenb. Deut. 1. p. 64.—*Ib.* Vög. Liv. und. Esthl. p. 23.—Falco Vespertinus, *Gmel.* Syst. 1. p. 282.—*Lath.* Ind. Orn. 1. p. 46.—*Buff.* pl. Enl. 431.—Ingrian Falcon, *Lath.* Syn. 1. p. 102.—Orange-legged Hobby, *Lath.* Syn. and Supp. 2. p. 46.

Several specimens of this small falcon having been lately met with

in this country, a brief description may not be unacceptable. Three of these were seen at Horsing, Norfolk, and proved upon examination to be an adult, male, and female; a fourth has also been shot at Holkham Park.[1]

The general plumage is described by Temminck as being of bluish colour, with occasional spots; cere and legs red; claws yellow; the head, neck, and breast, vent, and, in general, all the upper parts of the body, of a greyish-lead colour, without spots; the thighs, belly, lesser coverts, and the tail spotted with red; it measures ten inches and six lines in length; the female is a little larger than the male; the head, with black longitudinal streaks behind the neck, which is brown with black margins; the upper part of the body of a bluish-black colour; the sides of the head and throat of a bright red. The young male resembles the female till after the second moulting, when they begin to assume the plumage of the adult male. It is common in Russia, Poland, Austria, and in Italy, and beyond the Alps. It is very rare in France and Holland.

ORBIT.—The skin that surrounds the eye, which in some birds is bare of feathers, as in the Heron.

ORIOLUS (Temminck.)—* Oriole, a genus thus characterised. Bill somewhat conical, flattened at its base, straight, and sharp pointed; the cutting edges (*tomia*) scymetar-shaped, and bending a little inwards; the upper mandible slightly notched, and longer than the lower one; nostrils at the side of the base, and naked, pierced in a large membrane; wings having the first quill very short, and the third the longest; shank shorter, or at most, not longer than the middle toe; feet with three toes before and one behind, and having the outer toe joined to the middle one.*

OSPREY (*Pandion haliæetus*, Savigny.)

*Balbusardus Haliæetus, *Flem.* Br. Anim. p. 51.—Falco Haliæetus, *Linn.* 1. p. 129. 26.—Fauna Suec. No. 63.—*Lath.* Ind. Orn. 1. p. 17. 30.—*Gmel.* Syst. 1. p. 263.—*Muller*, No. 66.—*Briss.* 1. p. 440. 10. t. 34.—Pandion Haliæetus, *Vigors*, Zool. Jour. 2. p. 336.—Aquila Haliæetus, *Meyer*, Tasschenb. Deut. 1. p. 17.—Falco arundinaceus, *Gmel*, Syst. 1. p. 263. var. B. a female in moult.—Morphnus seu Clanga, *Raii*, Syn. p. 7. 6.—*Will.* (Angl.) p. 63.—Le Balbusard, *Buff.* Ois. 1. p. 103. t. 2.—*Ib.* pl. Enl. 414.—Aigle Balbusard, *Temm.* Man. d'Orn. 1. p. 47. 2d.—Flusadler, *Bechst.* Tasschenb. Deut. 1. p. 12.—*Meyer*, Vög. Deut. 2. Heft 23. a figure of the male.—Osprey, Br. Zool. 1. No. 46.—*Ib.* fol. p. 65. t. A. 1.—Arct. Zool. 2. No. 91.—*Lath.* Ind. Syn. 1. p. 45. 26.—*Ib.* Supp. p. 13.—*Lewin's* Br. Birds, 1. t. 5.—*Mont.* Orn. Dict.—*Ib.* Supp.—*Walc.* Syn. 1. t. 5.—*White's* Hist. Selb. p. 97.—*Bewick's* Br. Birds, 1. p. 13.—*Shaw's* Zool. 7. p. 82.—*Don.* Br. Birds, 3. t. 70.—*Pult.* Cat. Dorset. p. 2.—*Wilson's* Amer. Orn. 5. p. 13. pl. 28. fig. 1.—Carolina Osprey, *Lath.* Syn. 1. p. 46. 26. A.—Cayenne Osprey, *Ib.* 1. p. 47. 26. B.—*Selby*, pl. 4. p. 12.

[1] Mag. of Nat. Hist. iv. 116.

Provincial.—Fishing Hawk. Fishing Eagle. Bald Buzzard.*

This large species of falcon weighs between four and five pounds; length near two feet; the bill is black; cere blue; irides yellow; the feathers on the head are brown, with white margins; the back part of the head, throat, and neck, white, with a little mixture of brown; beneath the eye is a band of brown, reaching almost to the shoulder; the body is brown above, the under parts are white; the feathers of the tail are transversely barred with white on the inner webs, except the two middle ones, which are wholly brown; legs short, strong, naked, of a bluish-ash colour; claws long, much hooked, and black; the outer toe turns easily backwards; and, what is remarkable, the claw belonging to it is larger than that of the inner toe.

These birds seem to vary a little in plumage; that from which Mr. Pennant took his description, had a spot of white on the joint of the wing next the body; the breast spotted with dull yellow; the greater quills black; the interior webs varied with brown and white.

This species is now rarely met with in England, and more frequently in Devonshire than elsewhere; it resides chiefly near water, especially large rivers and lakes. Its principal food is fish, which it catches with great dexterity, by pouncing on them with vast rapidity, and carrying them off in its talons. We are informed that it is frequently seen about the lake of Killarney, in Ireland; and at particular seasons, no doubt, breeds there. It is said to make its nest generally on the ground by the side of water, composed of flags and rushes; but we once saw the nest of this bird on the top of a chimney of a ruin, in an island on Loch Lomond, in Scotland; it was large and flat, formed of sticks laid across, and resting on the sides of the chimney, lined with flags. It is said to lay three or four white eggs, of an elliptical form, rather less than those of a hen. Many of the ancient writers have described this bird to have one foot subpalmuted, a circumstance that has never occurred in any animal; each side always corresponding in size and shape. The Osprey can neither swim nor dive, but takes its prey as they approach the surface of the water.

*The manœuvres of this bird, while in search of his prey, is described by Wilson, in his usual eloquent manner:—"On leaving his nest," he says, "he usually flies direct till he comes to the sea, then sails round in easy curving lines, turning sometimes in the air as on a pivot, apparently without the least exertion, rarely moving the wings; his legs extended in a straight line behind, and his remarkable strength and curvature of wing distinguishing him from all other hawks. Suddenly he is seen to check his course, as if struck by a particular object, which

he seems to survey, for a few moments, with such steadiness that he appears fixed in the air, flapping his wings. This object, however, he abandons, and is again seen sailing round as before. Now his attention is again arrested, and he descends with great rapidity; but ere he reaches the surface, shoots off on another course, as if ashamed that a second victim had escaped him. He now sails at a short distance above the surface, and by a zigzag descent, and without seeming to dip his feet in the water, seizes a fish which, after carrying a short distance, he drops, or probably yields up his prey to the bald eagle, and again ascends, by easy spiral circles, to the higher regions, where he glides about with all the ease and majesty of his species. At once, from the sublime ærial height, he descends like a perpendicular torrent, plunging into the sea with a loud rushing sound, and with the certainty of a rifle. In a few moments he emerges, bearing in his claws his struggling prey, which he always carries head foremost, and, having risen a few feet above the surface, shakes himself as a water-spaniel would do, and directs his heavy and laborious course direct for the land. If the wind blows hard, and his nest be in the quarter from whence he comes, it is amusing to observe with what judgment he beats up to windward; not in a direct line, but making several successive tacks to gain his purpose."*

In the falcon tribe it is usual for the feathers on the thighs to be long, and hang down below the knees; but in this species the feathers on those parts are remarkably short, and consequently better adapted for pouncing on their scaly prey, the roughened feet and unusual disposition of its formidable talons, greatly contributing to secure it. Short downy feathers continue half way down the front of the legs, but not behind.

An Osprey was seen to stoop and carry of a young half-grown duck from the surface of the water, at Slapton Ley. In the struggle, the duck fell from the talons of the eagle, but was recovered before it reached the water.

* This species is described by Temminck and Wilson, as migrating in winter.* It is common in Russia, France, and Germany, and also in Switzerland and Holland. It is said to breed in the Orkney Islands, and upon Loch Lomond, and several are shot in Devonshire almost every year. Three of these were nearly similar in plumage, but somewhat different from that described above, which being probably a female, it may be proper to describe a male.

Length about two feet; breadth five feet six inches. The sides of the head behind the eyes are white, extending to the hind head, at

which part it is mixed with brown; on the chin a few slender, dusky streaks; across the upper breast a very broad band of brown, the feathers margined paler; all the other parts beneath white, like the former. The upper parts also like the former; the quills dusky; some that had not been moulted are brown; the tail dusky brown, the pale bars not very conspicuous on the upper side; the legs and toes are remarkably roughened with scales, and on the inner side of the extremity of the outer toe are two or three spines. This was shot in July.

Colonel Montagu on crossing the bridge over the river Avon, at Aveton Gifford, in the month of April, observed an Osprey hawking for fish; at last its attention was arrested, and like the kestrel, in search of mice, it became stationary, as if examining what had attracted its attention. After a pause of some time, it descended to within about fifty yards of the surface of the water, and there continued hovering for another short interval, and then precipitated itself into the water with such great celerity as to be nearly immersed. In three or four seconds the bird rose without any apparent difficulty, carried off a trout of moderate size, and instead of alighting to regale upon its prey, soared to a prodigious height, and did not descend within his view. This bird flies heavily, not much unlike the common buzzard; but not unfrequently it glides slowly along with motionless wing. When examining the water for prey, its wings are in continual motion, although it remains stationary for a considerable time; its superior weight, perhaps, renders it difficult to continue suspended in the air, with the imperceptible motion of the wings, observed in the kestrel.

Possibly the Osprey was formerly trained to hawking for fish, as we find by an act passed in the reign of William and Mary, persons were prohibited at a certain period of the year, from taking any salmon, salmon-peal, or salmon-kind, by hawks, racks, or gins.

OTIS (Linnæus.) Bustard.—A genus thus characterised. Bill of mean length, nearly straight, compressed at the base, point of the upper mandible curved; nostrils removed from the base; lateral, oval and open; legs long, naked above the knee; tarsus reticulated; toes three, all forward, short, and united at the base; wings mean length, the third feather the longest.

OUZEL.—A name given to several birds, as the Dipper.

OWLS (*Strigidæ*, Leach.)—* A family of birds of prey (*Raptores*, Illiger,) distinguished by their mostly preying by night, or at least when most other birds are at roost. The pupil of the eye is capable of great extension; it is also furnished with a strong nictitating mem-

brane, with which the eye is frequently covered when exposed to a strong light, instead of closing the eyelid.

Some species occasionally prey by day when the weather is cloudy, but mostly by twilight, or by the light of the moon; for they can no more see in total darkness than any other animal.*

OXBIRD.—A name for the Strut.

OXEYE (*Parus major*, Ray.)

*Parus major, *Linn.* Syst. 1. p. 341. 3.—*Gmel.* Syst. 1. p. 1006. sp. 3.—*Lath.* Ind. Orn. 2. p. 562. 1.—*Raii*, Syn. p. 73. A. 1.—*Wils.* p. 174. 43.—*Briss.* 3. p. 539. 1.—La grosse Mesange ou Charbonnière, *Buff.* Ois. 5. p. 392. t. 17.—*Ib.* pl. Enl. 3. f. 1.—Mesange Charbonnière, *Temm.* Man. d'Orn. 1. p. 287.—Kohlmeise, *Bechst.* Naturg. Deut. 3. p. 834.—*Meyer*, Tasschenb. Deut. 1. p. 267.—*Frisch*, t. 13. f. 1.—Great Titmouse, or Oxeye, Br. Zool. 1. No. 162.—Arct. Zool. 2. p. 425. A.—*Will.* (Angl.) p. 240. t. 43.—*Lewin's* Br. Birds, 3. t. 117.—*Lath.* Syn. 4.—*Mont.* Orn. Dict.—*Bewick's* Br. Birds, 1. pl. 237.—*Flem.* Br. Anim. p. 80.—*Selby*, pl. 51. fig. 1. p. 226.*

Provincial.—Great Black-headed Tomtit. Blackcap.

This species weighs about ten drams; length five inches and three quarters. The bill is black; irides dusky. The head and throat black; cheeks white; back olive-green; the rump bluish-grey; belly yellow, tinged with green, divided down the middle to the vent by a broad black list, most conspicuous in the male; quill-feathers dusky; coverts bluish, the larger tipped with white; tail dusky; the outer feathers white on the exterior webs, the others margined with bluish grey; legs lead colour.

The Oxeye has all the habits of the blue tit. The nest is made of moss, lined with hair, placed in the hole of a wall or tree. We once found it in the barrel of a garden pump. It lays sometimes as many as eight eggs, but more commonly six, white, spotted with rust-colour, which are so exactly like those of the nuthatch as not to be distinguished; their weight about thirty grains.

We have known this bird deposit its eggs in the hole of a decayed tree upon the rotten wood, without the least appearance of a nest: probably the nest had been destroyed just at the time the bird was compelled to lay, and she had not time to make another. The common note is a sort of chatter, but in the spring it assumes a greater variety, a shrill whistle, and a very singular noise, something like the whetting of a saw; but these cease with incubation.

This is a very common species in the wooded and inclosed districts, but rarely occurs in the open part of the country. Its food consists of insects and their larvæ, which it finds upon the foliage, or in the interstices of the bark of the tree. It will sometimes attack a bird its inferior in size, or one in a sickly state, fracturing its skull by re-

peated strokes of its pointed bill. This is a common species in almost every part of England, as well as throughout Europe, and is said to inhabit the Cape of Good Hope.

OYSTER-CATCHER (*Hæmatopus ostralegus*, Linnæus.)

Hæmatopus ostralegus, *Linn.* Syst. 1. p. 257.—*Gmel.* Syst. 2. p. 694.—*Raii*, Syn. p. 105. A. 7.—Hæmatopus Belonii, *Will.* p. 129.—*Ib.* p. 220. t. 55.—*Lath.* Ind. Orn. 2. p. 752.—*Temm.* Man. d'Orn. 2. p. 531.—Ostralega, seu Pica marina, *Briss.* 5. p. 38. t. 3. f. 2.—*Ib.* 8vo. 2. p. 221.—L'Huitrier, *Buff.* Ois. 8. p. 119. t. 9.—Sea-Pie, or Pied Oyster-catcher, Br. Zool. 2. p. 213. t. 74.—*Ib.* fol. 127. t. D. 2.—*Will.* (Angl.) p. 297.—*Albin*, 1. t. 78.—*Hayes*, Br. Birds, t. 12.—*Lath.* Syn. 5. p. 219. t. 84.—*Lewin's* Br. Birds, 5. t. 188.—*Walc.* Syn. 2. t. 166.—*Don.* Br. Birds, 3. t. 62.—*Pult.* Cat. Dorset. p. 15.—*Flem.* Br. Anim. p. 115.

Provincial.—Pienet. Olive.

The weight of the Pied Oyster-catcher is about seventeen ounces; length sixteen inches; bill three inches long, straight, compressed; the tip wedge-shaped, the colour orange; irides crimson; orbits orange-yellow; the head, neck, upper part of the back, scapulars, and lesser wing coverts black; a small spot of white under the eyelid, and a crescent of the same across the throat; but this last is by no means a general character, for in more than twenty specimens we never have found it, although such are to be seen in different collections. The greater coverts are white, the next above them tipped with white; the quills are black, with more or less white on the inner webs; the lower part of the back, rump, breast, and under parts are white; the base of the tail is white, the end black; legs red orange; claws black.

This bird is common on our shores, but never quits the sea-coast. In winter they assemble in small flocks. Their principal food is marine insects and shell-fish; and from their adroitness in getting at an oyster, they have taken this name. This, however, can only be done when the shells are partly open; it is then the bill is inserted to kill the oyster. It makes no nest, but deposits its eggs on the bare ground above high-water mark; generally four, of an olivaceous-brown, blotched with black, somewhat larger than that of the lapwing. At the time of incubation the male is very watchful, and upon the least alarm runs off with a loud scream, upon which the female instantly runs from her eggs to some distance, and then takes wing. It is a shy bird, but when the young are hatched becomes bolder. The young is capable of running as soon as it quits the egg, and is led by the parent birds to its proper food.

These birds are subject to some variation in plumage. In most the white under the chin is wanting; in some that mark is mottled with black, and the white spot under the eyelid wanting. Whether these are varieties, or depending on age or sex, has not been thoroughly ascertained; perhaps both: but we have killed both sexes at all seasons

without the white on the throat. Temminck says that they change their feathers twice in the year, moulting in the spring and autumn; but the colour of the plumage does not seem to change at these times; the only difference consisting in the absence or presence of the white gorget on the throat. There does not appear to be any difference in the sexes in the young: the plumage is dusky; the feathers margined with brown; the eyes of a brownish-black, iris brown: feet of a greyish-black. Dr. Latham observes, it is easily tamed when taken young, and has been known to attend the ducks and other poultry to feed, and shelter at night.

*On the sandy flat coast of Lincolnshire, we once observed a large flock of Oyster-catchers, and learned that a remarkably high tide had swept away all their eggs, together with those of the dilwall and richel bird, which usually lay their eggs a little above high-water mark.

On that coast, near Skegness, at a point called Gibraltar, there is an isolated part of a marsh, where Oyster-catchers breed in such abundance, that a fisherman informed us he had taken a bushel of eggs in a morning. Instinct has directed these, and other shore birds, to deposit their eggs above the flux of the highest spring tides, and therefore it must have been an unusually high tide to have caused such devastation amongst the eggs. The number of these layed by this bird, is invariably four, deposited in a small excavation without any nest, and like others of a similar nature, the bird always disposes them so as to occupy the least possible space, that they may be equally exposed to the incubating temperature of her body; that is, with the smaller ends inwards. The weight of the egg is about an ounce and a half.

It is said that the Oyster-catcher has no aversion to take the water; probably like the curlew, it is not distressed on the water, and can occasionally make its escape by swimming if wounded; a circumstance not unusual with the common sandpiper. They assemble in great numbers for their annual migration, but they lead a solitary life during the breeding season.

"Beautiful and easily domesticated as these birds are," says a writer in Blackwood's Magazine, "it is surprising they are not more frequently introduced in our pleasure grounds; those who have visited Brighton within these few years, may remember the numbers running about without alarm, on the lawn of the Pavilion, exhibiting their smart, pie-balled glossy coats, in full contrast with their long, bright, orange beaks, and legs, and crimson irides."*

Parrot Crossbill.

PAIRING OF BIRDS.—Some very interesting facts on this subject may be found in the articles, INCUBATION, SONG, NIGHTINGALE, GOLD-CRESTED WREN, &c.

PALMIPEDES (LATHAM.)—Web-footed birds.

PANDION (SAVIGNY.)—*A genus thus characterised. Bill rounded above, ceroma twisted; nostrils crescent-shaped, and membranaceous at the upper margin; shanks naked; shins with stiff scales and reticulated; toes free, the outer versatile; claws equal, rounded below; the second quill the longest in the wing.—(VIGORS.)*

PARROT CROSSBILL (*Loxia Pytiopsittacus*, BECHSTEIN.)

* Loxia Pytiopsittacus, *Bechst.* Tasschenb. Deut. 3. p. 106.—Bec croisé perroquet, ou des Sapins, *Temm.* Man. d'Orn. 1. p. 325.—Loxia curvirostra, major, *Gmel.* Syst. 1. p. 843. sp. 1. var. 2.—*Lath.* Ind. Orn. 1. 371. sp. 1. var. *y*.—Curcirostra pinetorum, *Meyer*, Vög. Liv. und. Esthl. p. 71.—Kiefern Kreuzschnabel,

Bechst. Naturg. Deut. 3. p. 20. t. 32. f. 2. and 3.—Grosschnabliger Kernbeiser, *Meyer*, Tasschenb. Deut. 1. p. 137.—*Ib.* Vög. Deut. 1. t. f. 1. old male.—*Selby*, pl. 53**. fig. 1. p. 254.

The bill of this species, according to Selby, is very strong, and five-eighths of an inch deep; shorter than the middle toe, much hooked, and the crossing point of the lower mandible, not reaching so high as the ridge of the upper one; but in the common crossbill, it comes beyond that part: the head large in proportion, body thick, and considerably exceeding in size that of the common species; the whole of the upper and under parts of the body have an intermixture of tile red, sulphur and wax yellow, and grey; the wings of a deep hair brown colour, greater coverts and quills tinged and margined with wine yellow; tail the same as the wings; legs and toes yellowish brown; claws black.

The specimen, from which this description is taken, was sent from Ross-shire, and appears to be a young male, as it answers to Temminck's description of the bird of a year old. According to that author, the plumage of the old male is principally of an oil green colour, tinged with grey. The throat and sides of the neck bluish grey; rump sulphur yellow, inclining to lemon yellow; breast and belly the same, but mixed with grey; flanks with streaks of blackish grey.

Another very mutilated specimen of this bird is in the Edinburgh Museum: in manners it resembles the other species of this singular genus. It inhabits the pine forests of the Arctic regions, where it is found in great numbers, retiring on the approach of winter.

According to Temminck, it visits Poland, Prussia, and other parts of Germany, during the winter months, and breeds there at that season, returning to its native regions in the north, on the approach of summer. In France and Holland it only occurs accidentally: the nest is skilfully constructed upon the branches of a fir-tree; the eggs are said to be four or five in number, of an ash-grey colour, marked at the greater end with large irregular spots of blood red, and over the rest of the surface with minute specks. The food consists of the seeds of the fir and alder tree.*

PARTRIDGE (*Perdix cinerea*, Ray.)

* Perdix cinerea, *Lath.* Ind. Orn. 2. p. 645. sp. 9.—*Flem.* Br. Anim. p. 44.—Tetrao perdix, *Linn.* Syst. 1. p. 276. 13.—Faun. Suec. No. 205.—*Gmel.* Syst. 1. p. 757. sp. 13.—Perdix cinerea, *Raii*, Syn. p. 57. A. 2.—*Will.* p. 118. t. 28.—*Briss.* 1. p. 219. 1.—La Perdrix Grise, *Buff.* Ois. 2. p. 401.—*Ib.* pl. Enl. 27. female.—*Temm.* pig. et Gall. 3. p. 378.—*Ib.* Man. d'Orn. 2. p. 488.—La petite Perdrix, *Buff.* Ois. 2. p. 417.—Perdrix de Montagne, *Ib.* 2. p. 419.—*Ib.* pl. Enl. 136. a local variety.—Gemeines oder Graues Feldhuhn, *Bechst.* Naturg. Deut. 3. p. 1361.—*Meyer*, Tasschenb. Deut. 1. p. 303.—*Frisch*, Vög. t. 114. male, t. 114. B. red variety, and t. 115. white or cream-coloured variety.—Common Partridge, Br. Zool. 1. No. 96.—Arct. Zool. 2. p. 319. A.—*Will.* (Angl.) p. 166. t. 28.—*Albin*, 1. t. 27.—*Lath.* Syn. 4. p. 762. 8.—*Mont.* Orn.

Dict.—*Ib.* Supp.—*Lewin's* Br. Birds, 4. t. 136.—*Wale.* Syn. 2. t. 184.—*Pult.* Cat. Dorset. p. 7.—*Bewick's* Br. Birds, 1. p. t. 305.—*Selby*, pl. 61. p. 314.*

LOCAL VARIETIES.

Perdix montana, *Lath.* Ind. Orn. 2. p. 646. sp. 11.—Tetrao montanus, *Gmel.* Syst. p. 788. sp. 33.—Perdix Damascena, *Lath.* Ind. Orn. 2. p. 646. sp. 10.—Tetrao Damascena, *Gmel.* Syst. p. 758.—Damascus Partridge, *Lath.* Syn. 4. p. 764. 9. —Mountain Partridge, *Ib.* 4. p. 765. 10.

This species is so well known as to require very little description. Length about thirteen inches; weight fifteen ounces. The bill is bluish brown; irides hazel. General colour of the plumage cinereous brown and black mixed; some of the back and coverts streaked with buff; sides of the head bright rust-colour; behind the eye a naked, red, warty skin; on the breast a deep bay-coloured mark, in form of a horseshoe.

The tail consists of sixteen feathers of a bright rust-colour, except the four middle ones, which are like the back; legs bluish grey.

The female weighs about fourteen ounces; the head is less bright, and the coverts of the ears inclining to grey; the horseshoe on the breast is white for the first year, afterwards more or less like the male, and by the third year is no longer a mark of distinction; whereas by the head the sexes may always be known; the bare skin behind the eye is less conspicuous, and very little red.

It has been long an esteemed opinion amongst sportsmen as well as naturalists, that the female Partridge had none of the bay feathers on the breast like the male. This, however, is a mistake, as we have proved by the unerring rule of dissection; for happening to kill nine old birds one day, with very little variation as to the bay markings on the breast, we were led to open them all, by which we discovered five of them were females; and by re-examining the plumage found the males could only be known by the superior brightness of colour about the head, which alone seems to be the mark of distinction after the first or second year.

This bird is found in all parts of Great Britain where corn is cultivated, but never at any great distance from arable land: upon the barren mountains of the north it is never seen. In Scotland the Partridge, the grous, and the ptarmigan, each have their district: the first is only found in the glens or valleys; the second on the first hills; the last on the summits of the highest mountains; and it is very rarely that they intrude upon each other; though we have killed the three species in the same day.

The Partridge is very prolific, laying from twelve to twenty eggs. It makes no nest, but scrapes a small hollow in the ground, placing a few contiguous fibres therein to deposit its eggs on; these are of a light

brown colour. The old birds sit very close on their eggs when near hatching; and we have been informed by a gentleman of veracity, that he saw this bird taken with her eggs on the point of hatching, and carried in a hat to some distance; and that she continued to sit in confinement, and brought out her young. The time of incubation is three weeks; the young leave the nest in twelve hours; the parent birds are equally tenacious of their young, and lead them immediately to ant-hills, on the eggs of which they principally feed at first.

These birds flock together in broods till the returning spring. Sometimes three or four coveys will assemble in winter, and are then exceedingly shy. In vain may the sportsman pursue them, unless by surprise he can break and scatter the covey.

About the middle of February they begin to pair. In June they lay, and the young are excluded about the middle of July, and in about three weeks are capable of flying.

This is one of the few birds known under the denomination of game, and protected by the legislature. But notwithstanding many severe penal laws are enacted for its preservation, it is a query if the breed is not decreased thereby. The great demand of the luxurious and wealthy, and the high price given for these birds, is too great a temptation to the poacher; and he risks his liberty to supply the tables of the rich. Thus the several laws respecting game are ineffectual: they only serve to enhance the price, and hold out a temptation for the husbandman to ruin himself and family; whereas if the penalty was made much greater, and that wholly confined to the buyer, it would fall upon the tempters, who should be the only persons obliged by law to pay for their luxuries. The late act of parliament for confining the killing of this species between the fourteenth of September and the twelfth of February, only tended, in some degree, to preserve them from the fowler, but not from the nets of the poacher.

There are several varieties mentioned of this bird, but they are merely accidental defects. Four entirely white were taken alive out of one covey, by order of the late Lord Courtenay, at Powderham, in Devonshire, three of which we saw. These were intended to be given their liberty in the spring, in hopes of propagating the breed; but we never heard if it had the effect, or what became of them.

PARUS (Linnæus.)—*Tit, a genus thus characterised. Bill strong, short, somewhat conical, slightly compressed, sharp pointed, and hard; nostrils at the base round, covered with reflected bristly feathers; feet with three toes before and one behind, the fore ones divided to their origin, the hind toe strong and armed with a long hooked claw; wings

having the first quill of moderate length or almost obsolete, the second shorter than the third, the fourth and fifth the longest.*

PASSENGER PIGEON (*Columba migratoria.*)

* *Wils.* Amer. Orn. 5. p. 102. pl. 44. fig. 1.—*Flem.* Br. Anim. p. 145. 6.

This bird was shot while perched on a wall near a pigeon-house, at West Hall, Monymeal, Fifeshire, on the 31st December, 1825.*

PASSERES (Linnæus.)—*Sparrows or small birds in general.*

PASSERINE (Latham.)—* Sparrow-like birds.*

PASTOR (Temminck.)—* Ouzel, a genus thus characterised. Bill conic, scimitar-shaped, compressed, slightly arched, and the point notched; nostrils at the sides of the base oval, partly covered by a membrane, and clothed with small feathers; shank considerably longer than the middle toe; feet strong, with three toes before and one behind, the outer toe joined at its base to the middle one; wings having the first quill very short, and the second and third the longest.*

PEASE CROW.—A name for the Tern.

PEESE WEEP.—A name for the Lapwing.

PEGGY CUT-THROAT.—A name for the Whitethroat.

PELECANUS (Linnæus.)—A genus of birds of which only one species has been seen in this country. The *Pelecanus Onocretulus*, Temminck, was shot at Horsey Fen in 1663, and that in all probability one belonging to the King, which escaped from St. James's about that time; it measured three yards from tip to tip of the wings.

PENGUIN.—A name for the Awk.

PENRITH OUZEL.—The Dipper in its immature plumage.

PERCHERS *(*Insessores*, Vigors.)—A group of birds, including the Woodpeckers, (*Picæ*, Linnæus,) and the small birds (*Passeres*, Linnæus.) The name is any thing but distinctive; for most Raptores, Gallinæ, and even Waders and Swimmers perch.*

PERDIX (Latham.)—* Partridge, a genus thus characterised. Bill short, strong, naked at the base; upper mandible convex, with the point bending considerably downwards; nostrils at the sides of the base, pierced in a large membrane, and partly concealed by an arched naked scale; wings short and concave, the three first quills, in most species, shorter than the fourth and fifth, which are the longest in the wing; tail, of fourteen or eighteen feathers, short and generally bending towards the ground; feet with three toes before, united by a membrane as far as the first articulation, and with one hind toe; shank, in the male bird, frequently furnished with one, or more than one, spur or knob.*

PEWIT.—A name for the Lapwing.

PEREGRINE FALCON (*Falco Peregrinus*, Aldrovand.)

ADULT.

* Faucon Pelerin, *Temm.* Man. d'Orn. 1. p. 22.—Falco Peregrinus, *Lath.* Ind. Orn. 1. p. 33. 72.—*Gmel.* Syst. 1. p. 272.—*Briss.* 1. p. 341.—*Raii*, Syn. p. 13. 1.—*Vigors*, Zool. Jour. 2. p. 339.—Falco Barbarus, *Lath.* Ind. Orn. 1. p. 33. 71.—*Gmel.* Syst. 1. p. 272.—Le Faucon Pelerin, *Buff.* Ois. 249. t. 16.—Wander-Falke, *Bechst.* Tasschenb. Deut. p. 33.—*Meyer*, Tasschenb. Deut. 1. p. 55.—Le Lanier, *Buff.* pl. Enl. 430. adult male.—Peregrine Falcon, Br. Zool. 1. No. 48. t. 8.—Arct. Zool. 2. No. 97.—*Lath.* Syn. 1. p. 73.—*Ib.* Supp. p. 18.—*Lewin's* Br. Birds, 1. t. 12.—*Mont.* Orn. Dict.—*Ib.* Supp.—*Walc.* Syn. 1. t. 12.—*Shaw's* Zool. 7. p. 128.—*Bewick's* Supp. Br. Birds.—*Flem.* Br. Anim, p. 49.—*Shaw's* Zool. 7. p. 128.—Tartarian Falcon, *Lath.* Syn. 1. p. 73. A.—Spotted Falcon, *Ib.* p. 68.—*Pult.* Cat. Dorset, p. 2.—Barbary Falcon, *Will.* (Angl.) p. 81.—*Lath.* Syn. 1. p. 72.—Great Foot Hawk, *Wils.* Am. Orn. 1. p. 36.

YOUNG.

Falco communis, *Gmel.* Syst. 1. p. 270.—*Lath.* Ind. Orn. 1. p. 30. t. 67.—*Briss.* 1. p. 321.—Falco Hornotinus, *Briss.* 1. p. 324. A.—*Gmel.* Syst. 1. p. 270.—Faucon Sors, *Buff.* Ois. 1. t. 15.—*Ib.* pl. Enl. 470.—Yearling Falcon, *Lath.* Syn. 1. p. 65.—Falco gibbosus, *Briss.* 1. p. 324. B.—*Gmel.* Syst. 1. p. 270.—Le Faucon Haggard, *Buff.* Ois. 1. p. 254.—Haggard Falcon, *Will.* (Angl.) p. 88.—*Lath.* Syn. 1. p. 66.—Black Falcon, *Lath.* Syn. 1. p. 67.—*Edw.* t. 4.—Red Falcon. *Lath.* Syn. 1. p. 69.—Red Indian Falcon, *Will.* (Angl.) p. 81. t. 9.—*Lath.* Syn. 1. p. 69.—*Selby*, pl. 15 and 15 *. p. 37.*

This beautiful species is about sixteen inches and a half in length; breadth about thirty-seven. The bill is bluish black, at the base yellowish; gape and cere yellow; irides dusky: a large space round the eye bare of feathers, pale yellow. The whole upper parts of the plumage dusky black, with a cinereous dash; the shafts of the feathers black, and the margins slightly edged with ferruginous brown; the forehead pale; back and sides of the neck mixed with yellowish white; behind the eye a black patch; from the corner of the mouth a broad black streak pointing downwards; chin ferruginous white; the whole under parts the same, with a broad streak of dusky black down the shafts, less conspicuous on the throat and vent: under and upper tail-coverts barred with dusky and ferruginous white, the former dashed with cinereous; quill feathers, dusky black, dashed with cinereous, the inner webs with transverse oblong spots of ferruginous white; the under coverts of the wings alternately barred black and white; tail dusky black, dashed with cinereous, with eight pale ferruginous bars, least conspicuous on the outer webs of the exterior feathers; one of the bars constitutes the extremity.

The bill and talons of this species are remarkably strong, the former being much hooked, and furnished with a tooth-like process on each side of the upper mandible near the lip, and a corresponding notch in the under mandible, which enables it to cut and tear its prey with greater ease. The wings are very pointed, the second feather being the longest, the first not much inferior, and the tail short, so that the wings, when closed, reach very near the end. The legs short, strong, and pale yel-

low; the toes long, and furnished with a projection callous beneath, at the second joint.

*Montagu was of opinion, that many varieties of this had been described as distinct species, by authors, in which he has been followed by Temminck, Selby, and other naturalists, as will be seen by reference to the synonimes. From its nature, the Peregrine Falcon is limited to certain districts, choosing only the mountainous parts, where it can settle on the shelving rock of some stupendous cliff, and breed in security, and in the midst of plenty. From this circumstance, this species appears less plentiful with us than it really is, there not being on any part of our coast, from North to South, a spot where the cliffs rise to the height of three or four hundred feet, but they are found scattered during the breeding seasons, and from which they seldom retire, except for occasional migratory purposes, or when the young are driven to seek fresh quarters.

Mr. Pennant informs us that the rock of Llandedno, in Caernarvonshire, was famous for producing a generous breed of this species in the days of falconry, and in more recent days, the stupendous rock on which the Castle of Dumbarton stands, has been famous for a good breed. When in this neighbourhood one summer, Colonel Montagu had an opportunity of examining the larder of these depredators, which might have supplied a luxurious table, though not equal, perhaps, to that of the Bishop of Gevaudan, supplied from the nest of the ring-tailed eagle, as described by Dr. Shaw. From the front of the summit of this rock, the nest was visible, placed on a projecting ledge, and near the young were several heath poults, red grous, and other birds.

In daring disposition this noble bird equals or surpasses most of its congeners, while the more ignoble birds of prey, not endowed with the courage necessary to attack a quarry larger than themselves, are contented with the smaller birds and animals, which they can prey upon at leisure, and thus indulge their unquenchable thirst of blood. Those of a more bold and intrepid nature, cannot risk an advantage they have obtained by dexterity, over an animal infinitely superior to them in bodily strength, and therefore we find that in these, the first object of attack is the vital parts, in order to secure their prey as expeditiously as possible by death, and thereby prevent the chance of losing it, or receiving an injury by prolonging the struggle. If the buzzard is presented with a bird which he dare venture to seize, he plucks the feathers and begins his repast indiscriminately at any part where he may chance to draw blood; whereas, the intrepid Peregrine, knowing the extent of its power compared with its most powerful antagonist, the heron, aims at the head or upper part of the neck, as the

only point where it can secure a prompt and decisive victory. Even when a bird of inferior size is given, although it may seize the whole body in its talons, the operations of nature are so invariable, that the head is first cracked, and perhaps eaten, before the body is touched. It is contrary to the nature of these birds to attack their prey on the ground, or to get in contact with a large bird, it is indeed only on the wing that their powers can be properly estimated.

A yearling female in Colonel Montagu's possession, which had never enjoyed its native habits of destruction, having been taken before she could fly, and had never been much used to slaughter, except with an occasional small bird, was suffered to be a whole day without food, at the expiration of which an old male heron was introduced into the room where the Falcon was at liberty, the point of the heron's bill having been previously sawed off. As soon as the heron was in motion, the Falcon, who was also deprived of the means of flight, took post on a stool which was at one end of the room; and as the heron, regardless of his enemy, traversed the apartment, the Falcon motionless, kept her eyes fixed on her destined prey, till after several turns round the room, she judged the heron was sufficiently near to effect her purpose, when she sprang at the head, intending to seize that part with her talons. In this however she failed, the stool not having given her sufficient elevation to reach the high-erected head of the heron. This failure might probably have cost the Falcon her life, had the bill of her antagonist been perfect; for she received a blow on the body, that must otherwise have inflicted a severe if not a mortal wound, from so pointed an instrument, urged with such power. Baffled in this attempt, and having received a severe blow, it was conjectured no further attack would be made until the calls of hunger became more urgent. The Falcon, however, soon regained her station, and it was not long before we perceived the heron, regardless of his foe, again pass very near, when the Falcon, in a second attempt to seize her prey as before, was equally foiled, and again received a severe check from the bill of the heron. Finding her efforts had failed for want of the advantage nature had assigned her, instinct directed the Falcon to a box that stood on the opposite side of the room, which was somewhat higher. Here she again seemed to meditate another attack, by watching every motion of the heron, who continued his rounds with a view to make his escape; and it was not long before an opportunity offered for Falco to make an assault from her more elevated station. Here she had found an humble substitute for those powers with which nature had so amply furnished her, but of which she had been deprived, and at last succeeded in springing from her perch, and seizing the unfortunate heron by the

head and upper part of the neck with her talons, which instantly brought him to the ground. Now the unequal contest was soon determined; for in vain did the superior weight and strength of the heron drag and flounder with his enemy across the floor; in vain did he flap his unwieldy pinions to shake off the tyrant of the air; nor could even his gigantic legs force her from the bloody grasp; her work was short, and certain; no efforts could compel her now to quit her deadly gripe; the powerful, and only dreaded arms of her antagonist were secured, and thus disarmed, he became a sure and easy prey. Scarcely was the gigantic bird prostrate on the ground, than death ensued; for in this noble race, destined for blood and slaughter, torture makes no part of its nature, but, like what we are told of the generous lion, exulting in death, but disdaining cruelty; in less than half a minute did the Falcon tear out the gullet and windpipe of the heron, and regale on the head and neck.

Wilson informs us, that the American bird of this species retires, during the breeding season, to the gloomy recesses and swamps of the cedar forests, in the tall trees of which it constructs its nest, and rears its young secure from molestation. In these wilds, almost impenetrable to the foot of man, its screams are occasionally heard mingling with the hoarse tones of the heron, and the hooting of the eagle owl.* In this respect and several others, the American duck hawk seems to differ from our Peregrine Falcon. The anecdotes related of the dexterity and prowess of this noble bird, are innumerable; a writer, in a popular periodical, describes one pursuing a razorbill, which, instead of assaulting as usual, with the death pounce from the beak, he seized by the head with both his claws, and made towards the land, his prisoner croaking, screaming, and struggling lustily; but being a heavy bird, he so far overbalanced the aggressor, that both descended fast towards the sea, when, just as they touched the water, the Falcon let go his hold and ascended, the razorbill as instantaneously diving below. The nest is generally placed upon the shelf of a rock, in which the bird lays four or five eggs of a reddish brown colour, a little blotched and variegated.

PERNIS (Cuvier.)—* A genus thus characterised. Bill of middle length; lore covered with serrated feathers; shanks of middle length and half feathered; shins reticulated; the third quill the longest in the wing.*

PETREL (*Thalassidroma pelagica*, Vigors.)

Procellaria pelagica, *Linn.* Syst. 1. p. 212.—*Gmel.* Syst. 2. p. 561.—*Lath.* Ind. Orn. 2. p. 826. 19.—*Briss.* 6. p. 140. 1. t. 13. f. 1.—*Ib.* 8vo. 2. p. 398.—*Flem.* Br. Anim. p. 135.—*Vigors,* Zool. Journ. 2. p. 405.—*Temm.* Man. d'Orn. 2. p. 811.—Oiseau de tempête, *Buff.* Ois. 9. p. 327. t. 23.—Stormfinch, *Will.* p. 306.—*Ib.* (Angl.) p. 395.—Stormy Petrel, Br. Zool. 2. No. 259. t. 91.—*Ib.* fol. 146. t. L. 5.—Arct. Zool. 2. No. 464.—*Edw.* t. 90.—*Albin,* 3. t. 92.—*Borlas.*

Cornw. p. 247. t. 29.—*Lath.* Syn. 6. p. 411. 18.—*Ib.* Supp. p. 269.—*Lewin's* Br. Birds, 6. t. 219.—*Pult.* Cat. Dorset. p. 19.—*Walc.* Syn. 1. t. 91.—*Bewick's* Br. Birds, 2. 249.—*Wils.* Am. Orn. 7. p. 90.

Provincial.—Little Petrel. Witch. Mother Cary's Chicken. Mitty. Assilag. Spency. Sea Swallow. Allamoth.

This species is about the size of a swallow, and in its general appearance and flight, not unlike that bird. Length about six inches; colour of the plumage above, black; beneath of sooty brown or dusky; some of the secondary quills are white at the ends; rump and vent white; tail white at the base of the inner webs; legs black.

* There seems to be some variety in the plumage of this species, for three others, examined by Colonel Montagu, weighed about an ounce each; the coverts of the secondary quills were tipped with white, not the quills themselves, and a little white was observable on the under part of the wing; the vent in these was not white, but the rump and over the thighs, was of that colour; the feathers of the upper tail coverts were white at the base, tips black; the tail composed of twelve very broad feathers, and, when closed, nearly even at the end; their colour dusky black, all except the two middle ones, more or less white at the base. *

The Petrel is rarely seen on our shores, except in some of the northern islands, where it breeds in the holes of rocks. * It seems also to breed on the rocky coast of north Cornwall, from whence a gentleman in Devonshire had received two specimens, taken off their eggs in the month of June. Mr. Fleming also assured Montagu that it breeds in all the islets of Zetland; but is never seen on land during winter. Thus it has been found to be truly indigenous to the British dominions, extending from the southern to the most northern extremities. It is, however, local, and by no means generally diffused; but is attached to particular spots for the purpose of nidification. Like most other rock birds, it makes no nest, but deposits one large egg about the size of that of a blackbird, but more regularly oval, of a white-colour, with an obscure zone of purplish brown, formed by minute specks at the larger end.

We cannot believe the assertion that this bird is expert in diving; the form, levity, and large proportion of feathers should alike render them incapable of immersion; and they have not the form for pursuing their prey under water, nor do they appear to possess the means of diving, collecting their sustenance from the surface of the sea.

" As the Stormy Petrel," says Mr. R. Drossier, " is scarcely ever seen near the land, except in very boisterous weather, one of the

natives of the Orkneys agreed, for a trifling remuneration, to traverse the rock and take me some from out its fissures. Accordingly, accoutred with a rope of hemp and hog's bristles, coiled over his shoulders, he proceeded to the cliff; having made one end fast, by means of a stake, he threw the coil over the face of the rock, and gradually lowered himself down, with great caution and circumspection, carefully pressing his feet hard upon the narrow ridges before he loosened his firm grasp of the rope, which he never altogether abandoned. I had thrown myself on my chest to have a better view of him over the cliff, and certainly to see the dexterity and bravery with which he threw himself from one aperture to another, was truly grand. The tumbling waves of the Atlantic were foaming many hundred feet beneath, and dashing their curling cream-like surges against the dark base of the cliff, in sheets of the most beautiful white; while the herring and black backed gull, alternately sweeping past him, so as to be almost within reach of his arm, threw a wildness into the scene, increased by the discordant scream of the former and laughing bark of the latter. This, however, he appeared entirely to disregard, and, continuing his search, returned in about half an hour with seven or eight of the Stormy Petrel, tied up in an old stocking."[1]

The female lays two eggs, of a dirty dingy white, encircled at the larger end by a ring of fine rust-coloured freckles.

It is no uncommon occurrence to find birds of this species dead, contiguous to the coast, and sometimes remote, such we have had brought to us several times in the months of October and November; a specimen was killed near Bath, and another is said to have been shot so far inland as Derbyshire. From these circumstances, it is surmised that they sometimes fly across the land, or more probably are driven inland by the strength of the gales, frequently occurring at the season when they have been found, and which even the powerful wing of this bird cannot always resist. But what occasions the annual mortality which has been noticed in different parts, it is difficult to determine; perhaps illness is the occasion of their flying to the shore, to make a short cut across promontaries, or, in a weak state, to avoid a storm or opposing wind, and being unable to proceed far, are found dead on the land.* This is a Pelagian bird, living remote from land, except in the breeding season. They are seen in great numbers all over the vast Atlantic ocean, and will frequently follow a ship for many days, supposed for the purpose of sheltering themselves in the wake of the vessel, but more probably for the sake of the various matter thrown

[1] Loudon's Mag. of Nat. Hist.

overboard, for they will stoop and pick up bits of biscuit and meat. It is supposed to be seen only before stormy weather, and of course not a welcome visitor to the sailors.

"It is the business of the naturalist," says Wilson, "and the glory of philosophy, to examine into the reality of these things; to dissipate the clouds of error and superstition whenever they begin to darken and bewilder the human understanding, and to illustrate Nature with the radiance of truth.

"When we inquire accordingly into the unvarnished history of this ominous bird, we find that it is by no means peculiar in presaging storms, as many others of very different families are evidently endowed with a more nice perception of change in the atmosphere than man. Hence it is, that before rain, swallows are seen more eagerly hawking for flies, and ducks carefully trimming their feathers, and tossing water over their backs, to try whether it will run off again without wetting them. But it would be as absurd to accuse the swallows and ducks, on that account, of being the cause of rain, as to impute a tempest to the spiteful malice of the poor Petrels. Seamen ought rather to be thankful to them for the warning which their delicate feeling of aërial change enables them to give of an approaching hurricane.

"As well," Wilson adds, "might they curse the midnight light-house that, star-like, guides them on their watery way, or the buoy that warns them of the sunken rocks below, as this harmless wanderer, whose manner informs them of the approach of the storm, and thereby enables them to prepare for it."[1] The fact is, that though the Petrels venture to wing their way over the wide ocean as fearlessly as our swallows do over a mill-pond, they are not the less sensible to danger; and, as if feelingly aware of their own weakness, they make all haste to the nearest shelter. When they cannot then find an island or a rock to shield them from the blast, they make for the first ship they can descry, crowd into her wake, and even close under the stern, heedless, it would appear, of the rushing surge, so that they can keep the vessel between them and the unbroken sweep of the wind. It is not to be wondered at, in such cases, that their low wailing note of *weet weet*, which may be heard during the whole of a stormy and starless night, should add something supernatural to the roar of the waves and whistling of the wind, and infuse an ominous dread into minds prone to superstition.

If these views be correct, as to us they appear to be, Mr. Knapp has not represented the appearance of our little bird in stormy weather in

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[1] Wilson's Am. Orn. vii. 95. Architecture of Birds, p. 30.

its true light. "The Petrels," says he, "seem to repose in a common breeze, but, upon the approach or during the continuation of a gale, they surround a ship and catch up the small animals which the agitated ocean brings near the surface, or any food that may be dropped from the vessel. Whisking, with the celerity of an arrow, through the deep valleys of the abyss, and darting over the foaming crest of some mountain wave, they attend the labouring bark in all her perilous course. When the storm subsides they retire to rest and are no more seen."[1] Would our author, then, have us to infer that they sleep during a calm, and only feed when roused by the roar of a storm.

In a voyage to America, Colonel Montagu noticed two or three small congregations, and these generally followed the ship for several hours, flying round, and playing about in the manner of swallows, frequently stooping to pick up bits of biscuit thrown over for the purpose. Fortunately, however, we looked in vain each time for the accompanying tempest, which these bewitched chickens of Mother Cary were supposed to forbode. Sailors, naturally superstitious, have always considered this little bird the forerunner of stormy and tempestuous weather, as the appearance of the kingfisher denoted fine weather, denominated the halcyon days by the ancients. These auguries, however, may be founded in fact, for as the kingfisher is only seen on the sea-shores, or on the coasts of bays and estuaries in the temperate months, so the Petrel, whose rapid wing outstrips the wind, flies from the storm, and in its passage over the vast Atlantic, may truly warn the mariner of the approaching tempest. Thus all that is related is not fiction; thousands have witnessed the tempest that has succeeded the appearance of these little harbingers of Æolus; the fact is only known to the mariner, he does not reason upon the occurrence, and, unable to account for their sudden appearance, calls in the aid of superstition. The body is of so oily a nature, that if a wick is drawn through from the mouth to the vent and lighted, it will burn as a lamp; and it is said to be actually used for that purpose in the Ferroe Islands. Some few instances are recorded of its being killed far inland; one is mentioned in Latham's synopsis to have been shot at Oxford. We are also informed that some are annually seen on the western part of the peninsula of Cornwall, about Marazion and Penzance; in the former of which places we saw one that was taken.

PETTYCHAPS.—A name for the Fauvette and the Chiff-chaff.

PHALAROPE (*Phalaropus platyrhinchus*, Temminck.)

Tringa Lobata, *Linn.* Syst. 1. p. 249. 8.—*Gmel.* Syst. 2. p. 674.—*Flem.* Br. Anim. p. 100.—Grey Phalarope, *Lath.* Syn. 5. p. 272. a young bird in winter plumage.

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[1] Journ. of a Naturalist, p. 196. 3d. edit.

—*Penn.* Br. Zool. p. 126. t. E. 1. fig. 3.—*Ib.* 2. No. 218. t. 76.—Arct. Zool. 2. No. 412.—*Lewin's* Br. Birds, 5. t. 194.—*Walc.* Syn. 2. t. 156.—*Pult.* Cat. Dorset. p. 15.—Phalaropus Lobatus, *Lath.* Ind. Orn. 2. p. 776. sp. 2.—Phalarope à Festons Dentelés, *Buff.* Ois. 8. p. 226.—Le Phalarope Gris, *Cuv.* Reg. Anim. 1. p. 492.—Grey Coot-footed Tringa, *Edw.* t. 308.—Tringa Fulicaria, *Brunn.* Orn. Boreal. p. 51. No. 172.—Phalaropus Rufus, *Bechst.* Naturg. Deut. 4. p. 381.—Tringa Hyperborea, *Gmel.* Syst. 1. p. 676.—Le Phalarope Rouge, *Buff.* Ois. 8. p. 225.—Phalarope Roussatre, *Briss.* Orn. 6. p. 20. No. 4.—Le Phalarope Rouge, *Cuv.* Reg. Anim. 1. p. 492.—Red Coot-footed Tringa, *Edw.* Glean. t. 142.—Red Phalarope, *Lath.* Syn. 5. p. 271.—Phalaropus Glacialis, *Lath.* Ind. Orn. 2. p. 776. sp. 3.—Tringa Glacialis, *Lath.* Syn. 5. p. 273.—Phalarope, à cou Jaune, *Sonn.* edit. de *Buff.* 23. p. 298.—Phalarope Platyrhinchus, *Temm.* Man. d'Orn. 2. p. 712.

In size this species is rather larger than the dunlin, weighing from about an ounce to an ounce and three-quarters; length seven inches and a half; breadth about sixteen inches; the bill is black, flatted near the point, about an inch long; irides dark; the hind part of the head and neck dusky brown, dashed with ash-colour; the upper part of the body, scapulars, and wing coverts, cinereous grey; the feathers on the last darkest and edged with white; the forehead, crown of the head, chin, and whole under parts, pure white, except at the bend of the wing on the sides of the breast, which is ash-colour; a dusky spot on the cheek; quills black; tail dusky, edged with ash-colour; legs compressed, like the divers, of a light-colour; toes scolloped; membranes serrated on the margins. This description was taken from a specimen killed at Alderton, in Wiltshire, the sex being unknown.

This species seems to be subject to much variety of sex and age, which has led some naturalists to divide it into several distinct species. A variety of the grey Phalarope, shot in October, clearly demonstrates the changing plumage, from the *P. glacialis* of Latham to the *P. lobatus*, having a sufficient quantity of the cinereous feathers on the back and scapulars, to shew that it was the Phalarope.

In another specimen, more advanced towards maturity, the crown of the head was more mixed with white, and the back had less of the rufous margined feathers, and more of cinereous grey; but there remained of the former three lines down the back, besides a few such feathers scattered on other parts; the neck before had also less of the clay-colour; the legs flesh-colour, tinged with yellow on the inside, the outside dusky, the webs partly dusky, partly yellow. To these varieties Temminck has added the Red Phalarope, *Tringa fulicaria*, which Mr. Bullock informed Colonel Montagu he found to be common in the marshes of Sunda and Westra, in the breeding season, where it was so tame, that he killed nine without moving from the spot, it being not in the least alarmed at the report of a gun. It seems a scarce and solitary bird with us; we once had an opportunity of seeing one swimming in a small pool of water left, by the tide, on the Sussex coast.

It was continually dipping its bill into the water, as if feeding on some insects; and so intent on its occupation as to suffer us to approach within a few yards. It never attempted to dive, and, when disturbed, flew only a small distance, very like the dunlins. Temminck informs us that it inhabits the north and east of Europe, being found in great abundance in Siberia, upon the banks of the lakes and rivers of these regions; and also on the borders of the Caspian Sea. Is numerous in America and in the arctic regions. Captain Sabine says he found them in the summer in the North Georgian Islands, and that he saw a flock of them, in June, swimming among the Icebergs, four miles from the west coast of Greenland, in latitude 68°.*

PHALAROPUS (Brisson.)—*A genus thus characterised. Bill long, slender, feeble, straight, depressed at the base, the two mandibles furrowed to the point; the extremity of the upper curved over the under mandible; the point of the under mandible awled; nostrils at the sides of the base, oval, prominent, surrounded by a membrane; legs middle-sized, slender, shanks compressed; three toes before, and one behind; the fore toes united as far as the first joint, the rest fringed with membranes festooned and denticulated upon the edges; hind toe without a membrane, articulated on the inner side; wings of middle size, the first and second quills the longest.*

PHASIANUS (Linnæus.)—*A genus thus characterised. Bill of mean length, strong; upper mandible convex, naked at the base, and with the tip bent downwards. Nostrils at the side of the base covered with a gristly scale; cheeks and region of the eyes destitute of feathers, and covered with a warty red skin; wings short, the first quills equally narrowed towards their tips, the fourth and fifth the longest; tail long, remarkably wedge-shaped, and composed of eighteen feathers; feet having the three fore toes united by a membrane as far as the first joint, and the hind toe articulated upon the shank, which, in the male birds, is furnished with a horny, cone-shaped, sharp spur.*

PHEASANT (*Phasianus colchicus*, Linnæus.)

*Phasianus colchicus, *Linn.* Syst. 1. p. 270. 3.—*Gmel.* Syst. 1. p. 741.—*Briss.* 1. p. 262. 1.—*Raii*, Syn. p. 56. A. 1.—*Will.* p. 117. t. 28.—Le Faisan vulgaire, *Buff.* Ois. 2. p. 328.—*Ib.* pl. Enl. 121. and 122.—*Temm.* Pig. et Gall. 2. p. 289.—*Ib.* Man. d'Orn. 2. p. 453.—Der gemeine Fasan, *Bechst.* Tasschenb. Deut. 3. p. 1160.—*Frisch*, Vög. p. 123.—Common Pheasant, *Will.* p. 163. t. 28.—*Albin*, 1. p. 25. 26.—*Mont.* Orn. Dict. & Supp.—*Bewick's* Br. Birds, 1. p. 282.—*Lath.* Syn. 4. p. 712. 4.—*Lewin's* Br. Birds, 3. t. 31.—*Walc.* Syn. 2. t. 178.—*Don.* Br. Birds, 5. t. 101.—*Pult.* Cat. Dorset. p. 7.—*Flem.* Br. Anim. p. 46.—*Selby*, pl. 57. p. 298.*

Weight of a full-grown bird near three pounds; length three feet; bill pale yellowish horn-colour; irides yellow; sides of the head bare, granulated, crimson, minutely speckled with black. This part is considerably brighter and much dilated in the courting season; at which

time also it erects a tuft of ear-like feathers on each side of the head. The various tints of green-gold, blue, and violet, in the plumage, exceeds description, and is too well known to require it. The tail consists of eighteen feathers, very cuneiform, the two middle ones about eighteen or twenty inches long; the legs are furnished with a spur three quarters of an inch long; toes joined by a strong membrane at the base.

The female is not so large, of a rufous-brown colour, mixed with grey and dusky; the bill is brown; irides hazel; and the sides of the head covered with feathers; tail of the same shape, but not so long as in the male.

It is difficult perhaps to trace the origin of this species, where it came from, or when first introduced into this country. Fleming says it is of Asiatic origin. It is now found in a state of nature in almost every part of the old continent, except the northern, but is not known in America. It bears confinement tolerably well, and produces a great many eggs in that state. The female will sometimes incubate if not disturbed by the male, which is too often the case; on which account the eggs are generally put under a common fowl to be hatched: by this means a great many are reared and given their liberty every year by gentlemen of property. Were it not for this, probably the breed would be extinct in a few years, in spite of the severity of the game laws. The demand for them at the tables of the luxurious, and the irresistible mark they offer to the sportsman, would soon cause their destruction in this age of excellence in the art of shooting flying.

It is a foolish bird, and when roused will frequently perch on the first tree, and is so intent upon the dogs as to suffer the sportsman to approach very near. At the time they perch they most frequently crow, or make a chuckling noise, by which the unfair sportsman is led to their destruction. The poachers catch them in nooses made of wire, horsehair twisted, and even with a briar set in the like manner at the verge of a wood, for they always run to feed in the adjacent fields morning and evening. Besides this they are taken by a wire fastened to a long pole, and by that means taken off their roost at night; or by fixing a bunch of matches lighted at the end of a pole are suffocated, and drop off the perch. Foxes also destroy a great many, in particular the females when sitting on their nest.

The Pheasant is found partially in most parts of England, but not so plentiful in the north, and rarely in Scotland. Wood and corn land seem necessary to its existence: it is partial to oak and beech woods, on the seed of which it feeds; buckwheat is also a favourite food. In the autumn they frequent turnip fields. Large wooded tracts only produce them in abundance, and they mostly frequent the thickest and

most impenetrable coverts, or such as are covered with long grass, which the female generally makes choice of to deposit her eggs in, scraping together a few surrounding dry vegetables for a nest, and laying from eight to twelve eggs. The male is frequently heard to crow in spring, clapping his wings at the same time.

In confinement the female sometimes assumes the plumage of the male; at this time she becomes barren, and is equally buffeted by both sexes. This strange change of plumage does not seem to be the effect of age; for we have been assured by our noble friend, Lord Caernarvon, who has had several in that state, that it takes place at three or four years old. In the one that nobleman favoured us with, the colours were not so bright as generally found in the other sex. Whether barrenness is the occasion of this change, or whether the want of commerce with the other sex, by reason of the male plumage, is the occasion of her not breeding, is yet to be discovered by dissection; for if in the breeding season there should appear any eggs in the ovarium, and those distended, there can be no doubt of the latter cause. In a state of nature this circumstance probably does not take place.

This bird does not appear to pair; but the female carefully hides her nest from the male; and we are informed where they are in plenty, and food provided for them, the two sexes do not in general feed together. Domestication generally produces variety, and we find this bird mixed more or less with white; sometimes wholly so.

In the Naturalist's Calendar, published in 1795, from the papers of the late Rev. Gilbert White of Selborne, a plate and description is given of a singular bird killed in Hampshire, which he considered as an hybrid between the Pheasant and domestic fowl. The head, neck, breast, and belly glossy black; the back, wing-feathers, and tail pale russet, streaked somewhat like the upper parts of a partridge; the tail was even at the end, and not very long; legs bare of feathers and destitute of a spur; round the eye the skin was bare and scarlet; weight three pounds three ounces and a half. By the drawing there also appears to be some white on the shoulder, and some dark feathers in the middle of the tail beneath.

It is generally believed the Pheasant and domestic fowl will breed together; if so, possibly the colour of the spurious breed would depend much on that of the common fowl. Some authors have given a description of such, but not at all like Mr. White's bird. One in the Leverian Museum is almost throughout of a dingy reddish-brown colour, with very few markings.

A variety, if not a distinct species, called the Ring Pheasant, is not

uncommon in this country. *"It would appear," says Selby, "that the northern parts of the kingdom are particularly suitable to them, as they are making considerable progression, and have, within a comparatively short space of time, spread themselves over the whole county of Northumberland. In this district the ring-necked variety is most prevalent, and has nearly superseded the common kind. The principal food of the Pheasant in the winter months is grain and seeds, but in spring and summer it lives more upon roots and insects. I have observed that the root of the bulbous crowfoot, (*Ranunculus bulbosus*,) a common but acrid meadow plant, is particularly sought after by this bird, and forms a great portion of its food during the months of May and June. The root of the garden tulip is also an article of diet, which it omits no opportunity of obtaining, and which, by means of its bill and feet, it is almost certain to reach, however deep it may be buried."*

In the early period of life, the infant Pheasants are delicate in confinement, for want of that food with which nature has so amply supplied their table in the wilderness: yet a large portion, with care, pass this delicate age, but have still to contend with that period of life when their nestling feathers are to be superseded by adult plumage. This is the time that many droop, for want of strength to support so considerable an exhaustion of animal secretion, to the furtherance of that great design. But of all the maladies under which this species, as well as some others of a similar nature, suffer, there is none so horribly destructive as the *oscitans*, or the distemper usually called the *gapes*, occasioned by an intestinal worm, (*Fasciolo trachea*, Montagu,) which, lodging in the wind-pipe, (*trachea*,) causes death by suffocation, from the inflamed state of the part.

We have been assured by Lord Caernarvon, that in his pheasantry, at Pixton, in Somersetshire, not above ten young ones are brought to maturity out of a hundred eggs, and that the greater number die about the age when the distinction of sexual plumage begins to be visible; at that age his lordship has generally found the gaping distemper to rage most violently.

Mr. Herbert attributes his success in rearing Pheasants, to the celebrity of his keeper, who being aware that the disease was occasioned by worms, treated it as is usual with other animals having a vermicular complaint. How far the nosological knowledge of this Æsculapian keeper, or even his physiological enquiries may have directed his prescription, we shall not here discuss; but we cannot suppose that a pellet or two of rue, mixed with butter, with which the Pheasants are crammed, can produce that beneficial effect he seems to ascribe to it.

Those who know a little of anatomy, are aware, that what passes down the *œsophagus* or gullet, can have no direct communication with the *trachea* or wind-pipe; and, therefore, the rue, which might be administered as a remedy for worms, in the stomach or intestines, cannot reach the seat of the disorder in a direct manner; and that its nature must be completely altered, by the subtle parts of it only having been taken up by the absorbents, and conveyed to these vermes, through the circuitous means of the circulation of the blood. We must, therefore, attribute the great success of this person, to a meritorious attention to the young Pheasants, in keeping them clean, and by administering plenty and variety of food, especially such as in their wild state would be their infant aliment. That much of this success is to be attributed to the locality of situation, experience has clearly demonstrated; at the short distance of a hundred yards, or perhaps less, from where the distemper fatally rages, a cottager, who continually breeds chickens, never discovered that his were ever affected, and scarcely fails in rearing the whole of every brood; which leads us to think, that through the influence of a cottage fire, the young chicks are continually inhaling a preventative to the vermicular distemper. The smoke of wood or peat is saturated with alkali, whose caustic quality either prevents the propagation, or destroys the worm in its infancy. It is most probably to this quality, that the fumes of tobacco have been found infallible in the *oscitans*, as will be more particularly noticed hereafter; and we really suspect that most vegetable smoke will be found to be beneficial.

Garlic, and the whole tribe of *Allium*, appears to have been administered with some advantage as a vermifuge in this case, but is by no means to be depended on as certain in its operations. In the advanced stages of the disease, it may be administered as a strong infusion, which should be the only drink of the birds; at the same time chives or young onions chopped small, and mixed with meal, may be given very beneficially once or twice a day as their food, in the early stage of the distemper, and before the violent irritation of the vermes has caused inflammation. In the advanced state of the disorder, nothing is so effectual as fumigation; the inhaling of the steam of medicated liquors, or the smoke of some narcotic herb, are the only methods of applying any remedy directly to the part affected; and of these, tobacco stands foremost as the readiest, from being so generally in use, and so easily applied in the form of fumigation; and we are happy to say, that if it is properly administered, it is an infallible remedy. In order to administer this fumigation in sufficient quantity, there is some care required, that the chickens are not suffocated. We have repeated this

operation with the utmost success, by confining the diseased chickens in a box, with a door on one side about half the height of the box, with its hinges so placed as to open downwards; by this means the interior can be examined from time to time, in order to observe the density of the smoke, and the state of the chickens. To a person in the habit of smoking tobacco, there is no difficulty in lighting a pipe, and by introducing the bowl through an aperture, the smoke may be blown in till it appears sufficiently dense, which must be examined every two or three minutes. When any of the chickens become stupified by the narcotic quality of the fumes of the tobacco, the operation of blowing the pipe should cease; and as fresh air will rush in when the door is opened, there will be no danger of suffocation. If, however, any should appear to be more exhausted than the rest, or than is requisite, they should be taken out, and they will soon recover when removed from the smoke. We have found, that the longer the chickens are confined in the smoke the better, but that a certain degree of density is required to destroy the worms by its caustic quality. As dense a smoke, therefore, as the chickens can continue to exist in, is best, and the criterion is stupefaction and the loss of the use of their legs: when that effect appears, no more smoke should be introduced. As soon, however, as the chickens recover the use of their legs, they may be suffered to remain in the fumigating box for two or three hours; but remembering that the inhaling of a large quantity of smoke in half an hour, will be more effectual, than a whole day confined in a small quantity. The effects of the fumes of tobacco is so powerful, that no culinary preparation can render the flesh of the fowl palatable that dies under this operation.*

PHEASANT-TAILED WIGEON.—A name for the Sarcelle.

PHILOMEL.—* A name for the Nightingale, chiefly used in poetry; as in Virgil,

> —— Mœrens Philomela sub umbrâ.
> Beneath the shade, sad, wailing Philomel.
> GEOR. IV.
> Melodious Philomela's wakeful strain.
> AKENSIDE.*

PIANET.—A name for the Magpie and for the Oyster Catcher.

PICÆ (LINNÆUS).—Pies, the second of the Linnæan Orders.

PICARANI.—A name for the Avoset.

PICIDÆ (VIGORS.)—*Woodpecker kind. A family of the climbing birds (*Scansores*, AUCTORES.)*

PICK-A-TREE.—A name for the Poppinjay.

PICKMIRE.—A name for the Laughing Gull.

PICKTARNY.—A name for the Tern.

PICUS (Linnæus.)—*Woodpecker, a genus thus characterised. Bill as long as, or longer than the head, straight, conical, compressed, pointed angular, and wedge-shaped at the point; tongue long and extensile, worm-shaped; nostrils at the base oval and open, concealed by reflected bristly feathers; wings with the first quill very short, the second of mean length, the third and fourth the longest; tail composed of twelve, sometimes ten, elastic, stiff, and sharp-pointed feathers; feet robust, formed for climbing; two toes before, and two behind; the two fore ones joined at their base, and the back ones divided; armed with very strong and hooked claws.*

PIE.—A name for the Oyster Catcher.

PIED FLYCATCHER (*Muscicapa luctuosa*, Temminck.)

ADULT MALE IN SUMMER.

*Muscicapa luctuosa, *Temm.* Man d'Orn. 1. p. 155.—Gobe Mouche becfique, *Temm. Ib.*—Muscicapa atricapilla. *Gmel.* Syst. 1. p. 935. sp. 9.—*Lath.* Ind. Orn. 1. p. 467. sp. 2.—*Flem.* Br. Anim. p. 63.—Rubetra Anglicana, *Briss.* Orn. 3. p. 436. sp. 27.—Schwartzrückiger Flugenfanger, *Bechst.* Nat. Duet. p. 431.—*Meyer*, Tasschenb. Deut. p. 232.—*Frisch.* t. 24. f. 2.—Pied Flycatcher, Br. Zool. 1. 351. t. 135.—Arct. Zool. 2. p. 391.—*Lewin's* Br. Birds, 3. t. 38.—*Lath.* Syn. 3. p. 324. 2.—*Mont.* Orn. Dict.—*Ib.* Supp.—*Bewick's* Br. Birds, 1. p. t. 195.

MALE, FEMALE, AND YOUNG IN WINTER.

Motacilla ficedula, *Gmel.* Syst. 1. p. 936. sp. 10.—Sylvia ficedula, *Lath.* Ind. Orn. 2. p. 517. sp. 28.—Muscicapa muscipeta, *Bechst.* Naturg. Deut. 3. p. 435.—Le Bec Figue, *Buff.* Ois. 5. p. 187.—*Ib.* Pl. Enl. 668.—Schwartzgraüer Flugenfanger, *Meyer*, Tasschenb. Deut. 1. p. 213.—Epicurean Warbler, Arct. Zool. 2. p. 419.—*Lath.* Syn. 4. p. 432.—*Selby*, pl. 43*. figs. 2, 3. p. 148.*

This species is about the size of a linnet. The bill is black; irides hazel; forehead white; crown of the head, cheeks, taking in the eyes, and whole upper parts, black; the lesser wing coverts and the greater coverts of the primores are dusky; the six first quill-feathers wholly dusky, the rest white at the base, increasing till the three last feathers are wholly white, except a spot of black near the point of the exterior web; the under parts of the bird, from chin to tail, are white; the tail is dusky black; the two exterior feathers white on their outer webs, and near the shaft on the inner webs, except at the point; the legs are black. The female has no white on the forehead; the whole upper parts are dusky brown; the under parts dirty white; in the wings the white is less conspicuous than in the male.

This bird is subject to some variety: some are said to be mixed with grey on the upper parts, or spotted with white on the rump or upper tail coverts; others have white on the three exterior feathers of the tail; some have only the outer feather marked with white.

Young birds at first resemble the female, and in their change of plumage the males have all the intermediate shades from brown to black. This has probably given rise to an opinion that the male changes his plumage in the winter, and becomes like the female.

It is said to be indigenous to England. It is, however, very local and by no means plentiful, but is spoken of as an inhabitant of Yorkshire, Lancashire, and Derbyshire.

*Mr. Bolton, in his *Harmonia Ruralis*, says, "The coldfinch has been known to build its nest in an almond-tree when in full blossom, and depart with its young early in September." The eggs represented in that work, are five in number, of a dark-blue colour. This certainly implies that Mr. Bolton found the bird sufficiently plentiful in his neighbourhood, to make such observations on its autumnal migrations, but we cannot conceive that it retires northward with the colder months; and if it does not change its habits with the season, and thus continue unnoticed, it certainly proceeds a very little way southward, as we believe there is no instance on record of its having been killed in the southern counties of Kent and Sussex—the evident route of the bird, if it migrates to and from the continent of Europe, like the spotted species.

Mr. Bewick speaks of a pair of these birds having been shot at Benton, in Northumberland, but is silent with respect to the season. One of these wanted the white spot on the forehead, in other respects they were similar; the upper parts in both were black, obscurely mixed with brown. This author adds the following remark, but unfortunately does not quote his authority. "The nest of this bird, with a very great number of young, was found in a hole in a tree, in Axwell-park, June 18, 1801. The parents, but particularly the male, incessantly kept feeding them with small flies, which they were extremely expert in catching." If this author had ocular demonstration of this remark, it is unfortunate the circumstance should be omitted, for we know by long experience, how little is to be depended on the observations of the unscientific.

*Mr. Edwin Lees had a nest of this bird brought to him, which he describes to have been "built upon a wooden rake that was carelessly lying on the ground, in a cottage garden at Bransford, near Worcester. In this nest the female laid five eggs, and even sat on them indifferent to any one passing in the garden, till the nest was taken by a boy belonging to the cottage. This nest is carelessly put together, yet prettily constructed of long green moss, intermixed with the catkins of

the hazel, and fibres, the interior lined with thin straws and wool; eggs thickly spotted with brown." [1]

Dr. Stanley, of Whitehaven, seems to have investigated the habits of this bird with care and accuracy. "We cannot find," he says, "a single well-authenticated fact of its having been met with in this country during the winter season; indeed, all the testimony upon which any reliance can be placed, is decidedly against the supposition that it is indigenous, and tends strongly to prove that it is only a summer bird of passage. For instance, Mr. Bolton, in his *Harmonia Ruralis*, says that it visits the West Riding of Yorkshire, and departs with its young in September. The Rev. Mr. Dalton, of Copgrove, (also in the West Riding of Yorkshire,) states that he has frequently seen it about his house in the summer, but does not recollect ever to have noticed it in the winter. Dr. Heysham, in his Catalogue of Cumberland Animals, observes that the Pied Flycatcher appears about the same time as the Spotted, but is not so common; and for the last three years we have noticed it regularly during the spring and summer, in Cumberland, but as yet have never been able to see, hear of, or procure a single specimen in the winter, notwithstanding we have repeatedly searched for it in all the winter months, during the above period; nor can we find, from the inquiries we have made, that it has ever been seen, at this season of the year, in those parts of Westmoreland where it constantly resorts in great numbers."

The migration of this species appears to be principally confined to the northern counties, as it is seldom observed beyond Yorkshire, and rarely seen in the south of England, although it has occasionally been met with in Norfolk, Suffolk, Middlesex, Surrey, and Dorsetshire; and Mr. Graves, in his British Ornithology, states, that in the summer of 1812 he found a nest of this bird, with young, at Peckham, in Surrey. In some parts of Westmoreland it is very plentiful, especially in the beautiful and extensive woods surrounding Lowther Castle, the magnificent and princely residence of the Earl of Lonsdale, where we have seen it in very great numbers, and where it has bred unmolested, and almost unknown, for years. On the contrary, we have reason to think it has not resorted to the vicinity of Carlisle more than five or six years, and, as far as we have yet been able to ascertain, only to one locality, where it is evidently upon the increase.

In this situation the males generally arrive about the middle of April, the females not until ten or fifteen days afterwards; they com-

[1] Mag. of Nat. Hist. i. 394.

mence nidification early in May, and the young are excluded about the first or second week in June. We have hitherto invariably found their nests in the hole of a tree, sometimes at a considerable height, occasionally near the surface of the ground, and, for two successive years, in the stump of a felled tree. In texture and formation the nest is very similar to that of the fauvette, blackcap, and whitethroat, being only slightly put together, composed almost entirely of small fibrous roots and dried grass, always lined with a little hair, and generally a few decayed leaves on the outer side, but entirely without moss. Their eggs vary in number: we have found their nest with five, six, and now and then with seven; their colour a pale green, and so greatly resembling the eggs of the redstart, that it is frequently very difficult to distinguish them, unless contrasted together: they are, however, far from being so elegantly made, of a rounder form, and rather less, weighing from twenty-three to thirty grains.

From the very early period of the year that a supposed Flycatcher's nest was noticed by Mr. Bolton, amongst the branches of an almond-tree, we have very little doubt but that it was actually belonging to the hedge sparrow, the earliest breeder, and the only one that lays blue eggs in such a situation. It is possible such an opinion was induced by the appearance of the Pied Flycatcher on, or in the neighbourhood of, the tree.

The males, soon after their arrival, should the weather be at all favourable, will frequently sit for a considerable time on the decayed branch of a tree, constantly repeating their short, little varied, although far from unpleasing song, every now and then interrupted by the pursuit and capture of some passing insect. Their alarm-note is not very unlike the word *chuck*, which they commonly repeat two or three times when approached, and which readily leads to their detection. The manners and habits of the Pied Flycatcher, have considerable affinity to those of the redstart; they arrive about the same time, associate together, and often build in the same holes, for which they will sometimes contend. On one occasion we found a dead female redstart in the nest of a Pied Flycatcher, containing two eggs; and at another time, when both these species had nests within a few inches of each other, upon the redstart's being removed, the female redstart took forcible possession of the Flycatcher's nest, incubated the eggs, and brought up the young.[1]

"On the third of June last," says Mr. Blackwall, "I procured a

[1] Mag. of Nat. Hist. iii. 173.

male Pied Flycatcher in the woods near the ferry-house, on the western shore of Windermere, where I saw two males and a female. The female, and one of the males, had paired, and were occupied in constructing a nest in a hole, in a decayed pollard ash, on the margin of the lake; but the vicinity of Ullswater appears to be the most favoured resort of this species, as in walking, on the 1st of June, from the Waterhead to Gowbarrow Old Park, on the western side of the lake, a distance not exceeding three miles, I saw, without quitting the carriage-road, five males at five separate stations, which were distinctly marked by large pollard ashes, partially decayed. To these spots the birds were evidently much attached, reluctantly retiring from them to a short distance, when greatly disturbed, and immediately returning again when the cause of their alarm was removed. This circumstance led me to suppose that they had nests; and as I did not observe a single female, it is probable that they were engaged in incubating their eggs, or in brooding their young. The males were all in full song, and their notes, which are sometimes, though rarely, delivered on the wing, are pleasing and varied."[1]*

PIED WAGTAIL *(*Motacilla Lotor*, Rennie.)

Motacilla alba, *Linn.* Syst. 1. p. 331. 11.—*Gmel.* Syst. 1. p. 960. sp. 11.—*Lath.* Ind. Orn. 2. p. 501. sp. 1. and var. B. and Y.—*Kaii*, Syn. p. 75. A. 1.—*Will.* p. 171. t. 42.—*Briss.* 3. p. 461. 38.—La Lavandière, *Buff.* Ois. 5. p. 251. t. 14. f. 1.—*Ib.* pl. Enl. 652. f. 1. male in spring plumage.—Bergeronette grise, *Temm.* Man. d'Orn. 1. p. 255.—Weise Bachstelze, *Meyer*, Tasschenb. Deut. 1. p. 216.—*Ib.* Vög. Deut. Heft. 3. male, female, and young.—White Wagtail, Br. Zool. 1. No. 142. t. 55.—Arct. Zool. 2. p. 396. B.—*Will.* (Angl.) p. 237.—*Lath.* Syn. 4. p. 395. 1.—*Ib.* Supp. p. 178.—*Lewin's* Br. Birds, 3. t. 95.—*Walc.* Syn. 2. t. 226.—*Mont.* Orn. Dict.—*Pult.* Cat. Dorset. p. 8.—*Bewick's* Br. Birds, 1. t. p. 194.—*Shaw's* Zool. 10. p. 545.—*Flem.* Br. Anim. p. 74.—*Selby*, pl. 49. fig. 1. p. 208.

Provincial.—Pied Wagtail. Black and White Wagtail. Dish-washer. Washer-woman.

It being manifestly absurd to name this the *white* Wagtail, as Linnæus does, I have changed the specific to *Lotor*, in accordance with an expressive provincial name.*

The weight of this species is near six drams; length seven inches and a half; the bill is black; irides dusky; the forehead, cheeks, and side of the neck white; the back of the head, upper and under side of the neck, chin, and breast black; back dusky, dashed with cinereous; in some nearly black; lower part of the breast and belly white; quill-feathers dusky, two or three next the body excepted, which are black,

[1] Mag. of Nat. Hist. i. 130.

deeply bordered on their exterior webs with white; the greater coverts black, tipped with white; the others black, dashed with ash-colour; the tail-feathers are black, except the two outmost on each side, which are black at the base, the other part white.

The female is dusky where the male is black, with more cinereous on the back and rump. This is the summer plumage; in the autumn the black feathers on the chin and throat fall off, and are replaced by white ones, leaving only a black patch, somewhat in form of a crescent, on the breast. The young birds have no black on the throat till the returning spring. In this state it has been described as a variety, but is in fact the constant winter plumage, regaining this black mark about the month of March.

The Pied Wagtail is a very active bird, and continually in motion, running after flies. In winter they change their abode, but do not quit the kingdom. As the weather becomes severe they haunt marshes subject to the flow of the tide. In such places on the coast we have seen them in abundance when none were to be found inland.

Early in the spring they return to their usual summer situations, and from the number that are sometimes seen together at this time, attending sheep-folds and new-ploughed fields, it should seem they were gregarious in their flights. In the breeding-season they seem to prefer pleasure-grounds that are constantly mowed, on which they run unincumbered, and where the insects have not sufficient cover to evade their sight.

The nest is found in various places; sometimes on the ground in a heap of stones, the hole of a wall, or on the top of a pollard-tree. It is composed of moss, dried grass, and fibres, put together with wool, and lined with feathers or hair. *The nests which I have examined have been built on the ground, in the hole of a bank, or on the shelf of a low rock, and formed of a texture of hair more than half an inch thick, but evidently not all worked together hair by hair; for several flattened tufts of the same hair are placed in various parts of the walls, though these tufts are usually bound down by single hairs laid obliquely over them, so that the interior may preserve a smooth uniform surface.*

The eggs are four or five in number, white, spotted all over with light brown and ash colour, weighing about forty grains. They exactly resemble that of the cuckoo, which bird frequently makes choice of its nest to deposit her egg in. It sings very prettily early in the spring, and frequently gives the alarm on the appearance of a hawk, which it pursues in company with the swallows.

PIET.—A name for the Dipper and for the Magpie.

PIGEONS *(*Columbidæ*, Leach.)—A family of scratching birds (*Rasores*, Illiger.)*

PIGEON-HAWK.—A name for the Sparrow-hawk.

PIGMY CURLEW (*Tringa subarquata*, Temminck.)

Bècasseau cocorli, *Temm.* Man. d'Orn. 2. p. 609.—Scolopax Africana, *Gmel.* Syst. 1. p. 655. sp. 19.—Numenius Africanus, *Lath.* Ind. Orn. 2. p. 712. sp. 10.—Cape Curlew, *Lath.* Syn. 5. p. 126.—L'Aloutte de mer, *Buff.* Ois. pl. Enl. 851.—Numenius Pygmæus, *Bechst.* Naturg. Deut. 4. p. 148. n. 5.—*Naum.* Vög. Deut. t. 22. f. 28.—*Meyer,* Vög. Deut. 2. t. f. 2.—Scolapax subarquata, *Gmel.* Syst. 1. p. 658. sp. 25.—Numenius subarquata *Bechst.* Naturg. Deut. 4. p. 133. 3. t. 6.—*Ib.* Tasschenb. Deut. 2. p. 276. n. 3.—Red Sandpiper, *Penn.* Arct. Zool. 2. p. 476. n. 392.—*Lath.* Syn. 5. p. 186.—Rothbauchiger Brachvogel, *Meyer,* Tasschenb. Deut. 2. p. 356.—*Naum.* t. 20. f. 27.—*Meyer,* Vög. Deut. 2. t. f. 1.—Pigmy Sandpiper, and Pigmy Curlew, *Mont.* Orn. Dict. and Supp.—*Flem.* Br. Anim. p. 108.

The length of this species is about eight inches and a half; breadth fifteen and a half; weight two ounces; bill an inch and a half long, and bent; legs black, and bare of feathers for half an inch above the knee; irides brown; the face white, over the eyes and throat, with brown spots; crown of the head black, the edges of the feathers red; nape also red with black streaks; the back black, the edges of the feathers dotted with angular red spots, beneath reddish brown, more or less marked with dark spots mixed with white; quills with pale margins on the inner webs; the tail cuneiform, dusky grey, bordered with white; upper and under coverts white, mixed with black and red bars.

As usual with others of the same family, much confusion exists respecting this species. That in Colonel Montagu's museum appeared to be an adult in moult, obtained at that season when part of its summer plumage yet remained, which enabled him to form a pretty correct idea of its plumage during the breeding season; another, in his possession, described in the first edition, was evidently young, having the white margins on the feathers upon the back, scapulars, and coverts of the wings.

Another specimen, shot by Mr. Foljambe, on the 1st October, 1812, is thus described by that gentleman:—"Length nine inches; the bill one inch and a half long, black and incurvated; the crown and forehead dusky, with a slight mixture of cinereous; over the eye a whitish line; cheeks and back of the neck cinereous, with faint dusky streaks, the feathers of the back and scapulars olive brown, mixed with dusky, with broader margins of the same yellow; quills black; chin and throat white; breast pale cream colour; belly, sides, vent, rump, and tail

coverts white; the feathers of the tail pale cinereous brown, with the shafts and the extremities margined with white; legs dusky black." In this specimen were observed the same signs of immaturity, the pale margin to the feathers, many of which, on the breast and belly, still retained the ferruginous colour, which in another month would have been thrown off; while that shot at Sandwich, described by Mr. Boys, was without any ferruginous on those parts, and the head and neck were rufous brown. That which is described in the general synopsis, taken from a specimen shot in Holland, had the head, back, and coverts of the wings, mixed with brown, ferruginous, and white: thus we have three distinct gradations of plumage in this species, which approaches so very nearly to the dunlin in one change of its plumage, that were it not for some trifling variation, and a little difference in the bill and legs, they might easily be confounded by a more than ordinary ornithologist. Indeed, so very nearly do these two birds approach each other, that, although we have no doubt of their distinction, it may be useful to particularise in what they essentially differ, in order that this species may be identified, and prevent that confusion which has probably so long existed, and lead to a more perfect knowledge of a bird that may be only considered as rare from its obscurity, caused by its great similarity to so plentiful a species as the dunlin.

In the specimen from which the original description was taken, and the figure given in Mr. Boys's History of Sandwich, the most obvious distinction between it and the dunlin, as permanent characters, consists in the superior slenderness of the bill and the legs, as well as in the length of the latter. A remarkable distinction is also observable in the thigh, which in this is bare of feathers for half an inch above the knee; whereas in the dunlin, that part is clothed to very near the knee-joint. The plumage of the head and neck is more inclined to rufous-brown, and the breast is destitute of the dusky streaks on the shafts of the feathers observable in the dunlin: the belly and sides are not of that pure white, and are wholly destitute of those minute spots so common on the sides of the dunlin: the feathers on the back and scapulars of this specimen of *pigmea* are margined with rufous-white; but as these pale margins are frequent in young birds, and not in adults, it may not be permanent: the lower part of the rump and coverts of the tail are immaculate white: the tail is not so cuneiform as in the dunlin, although the feathers are of a similar cinereous colour: in the wings there is scarcely a distinction between the two birds in their closed state.

Of the natural history of this species little is known; like most of its congeners, it only occasionally visits us, and retires to a less inhabited part of the north to breed. Temminck says he received a specimen from Senegal, another from the Cape of Good Hope, and a third from North America, differing in no respect from those killed in Holland, upon the banks of the rivers of which country it sometimes, though rarely, forms its nest, in which it lays four or five eggs, of a yellowish colour, with brown spots.

PIGMY SANDPIPER.—A variety of the Pigmy Curlew.

PINE GROSBEAK (*Pyrrhula enucleator*, TEMMINCK.)

*Corytheus Enucleator, *Flem.* Br. Anim. p. 76.—Bouvreuil Dur-Bec. *Temm.* Man. d'Orn. 1. p. 333.—Greatest Bullfinch, *Edw.* t. 123. 124. M. and F.—Pine Grosbeak, Br. Zool. 1. No. 114. t. 49. f. 2.—Arct. Zool. 2. No. 209.—*Ib.* Supp. p. 64.—*Lath.* Syn. 3. p. 111. 5.—*Ib.* Supp. p. 148.—*Lewin's* Br. Birds, 2. t. 68.—*Walc.* Syn. t. 207.—*Don.* Br. Birds, 1. t. 17.—*Mont.* Orn. Dict.—Haw-finch, *Selby*, pl. 53. * * fig. 1. & 2. 8vo. p. 257.*

This is larger than the haw-finch; weight rather more than two ounces; length above seven inches; bill thick at the base, and hooked at the point; colour dusky; irides hazel. The head, neck, breasts, and rump, are crimson: the back and lesser coverts of the wing black, edged with reddish; the greater wing coverts tipped with white, forming two bars on the wing; quill feathers dusky, edged on their external webs with dirty white; lower part of the belly and vent ash-coloured; the tail a little forked, dusky, margined whitish; legs brown: the female, brown, tinged with green; in some yellowish.

This bird is met with in this kingdom only in the most northern parts, inhabiting the pine forests of Scotland, and feeding on the seeds of that tree. It is supposed they breed in those parts, as Mr. Pennant saw them flying about the pines in the forest of Invercauld, Aberdeenshire, and states his belief that they breed there; but after many enquiries during his excursions in Scotland, Selby thinks he had not sufficient grounds for this belief. Latham says they are found in North America, and Hudson's Bay; that they make their nests in trees, at a small height from the ground, composed of sticks, lined with feathers, laying four white eggs. It is also found in the forests of Siberia, Lapland, and the northern parts of Russia.

PINK.—A name for the Chaffinch, expressive of its call.

PINNATIPEDES (LINNÆUS).—* Wading birds, (*Grallatores*, ILLIGER,) having their toes fringed with membranes.*

PINNOCK.—A name for the Tom-tit.

PINTAIL DUCK (*Dafila caudacuta*, LEACH.)

Anas acuta, *Linn.* Syst. 1. p. 202. 28.—*Gmel.* Syst. 2. p. 528.—*Lath.* Ind. Orn. 2. p. 864. 81.—*Temm.* Man. d'Orn. 2. p. 839.—Anas caudacuta, *Raii*, Syn. p.

147. A. 5.—*Ib.* p. 192. 13.—*Will.* p. 289. t. 72.—Anas longicauda, *Briss.* 6. p. 369. 16. t. 34. f. 1. 2.—*Ib.* 8vo. 2. p. 459.—Canard à longue queue, *Buff.* Ois. 9. p. 199. t. 13.—Tritzihoa, *Raii*, Syn. p. 175.—Sea Pheasant, or Cracker, *Will.* (Angl.) p. 376. t. 73.—*Albin*, 2. t. 94. 95.—*Flem.* Br. Anim. p. 124.—Pintail, Br. Zool. 2. No. 282.—*Ib.* fol. 156. t. Q. 8.—Arct. Zool. 2. No. 500.—*Lath.* Syn. 6. p. 526. 72.—*Pult.* Cat. Dorset. p. 21.—*Walc.* Syn. 1. t. 72.—*Lewin's* Br. Birds, 7. t. 261.—*Mont.* Orn. Dict. 1.—Linn. Trans. 4. pl. 13. fig. 6.—(Trachea.)

Provincial.—Winter Duck.

The weight of this species is about two pounds; length twenty inches. Bill black, bluish on the sides; irides dark; the head and upper part of the neck before rufous brown; the sides of the head glossed with purple; lower part of the neck before white, running up on each side to the hind head, divided by a brown line down the back of the neck; nape dusky, glossed with purple; breast and belly white; back and sides of the breast marked with numerous small undulated black and white lines; the scapulars black; the inner ones long, pointed, and margined with greyish white; smaller coverts of the wings fine ash colour; the greater coverts of the secondary quills tippped with bay; the greater quills dusky brown; lesser quills glossy purplish-green on their outer webs, black near the ends, tipped with white; the two middle feathers of the tail are three inches longer than the rest, narrow, pointed, and black; the others dusky, edged with white; vent black; legs dusky, inclining to lead colour.

The female is somewhat less; the head and neck rusty-brown, streaked with dusky; the back and scapulars dusky-brown, transversely marked with narrow white bars across each feather; the speculum in the wing something like the male, but less conspicuous; the under parts light rusty-brown, mottled with a deeper shade; the tail is brown and cuneiform; the two middle feathers crossed with one or two pale lines, but are not much longer than the next; the number of feathers are sixteen.

It has been proved, by keeping them domesticated, that they moult twice a-year, in June and October.

*This double moulting in so short a time, peculiar to some species of birds, is a most curious and extraordinary circumstance that seems to bid defiance to all human reasoning. That some birds should change their plumage with the season is evidently a gift of nature to accommodate their colour to their habits; as in the ptarmigan, that changes his mottled plumage in the autumn for that of white, in order that he may rest secure upon the bosom of the snow during winter. But there is no such evident reason for a double change in the short space of two or three months in the same season. The fact, however, now established

will doubtless lead to discovery. It accounts for the red-breasted shoveller being only the common blue-winged species, in the intermediate change of plumage; and it is probable all the males of that species would be found in the latter end of the summer or beginning of the autumn to assume more or less the female attire, with that rufous tinge which has caused it to be taken for a distinct species.*

The male of this species is furnished with a labyrinth. This bird is frequently taken in our decoys in winter, and sold by the name of the Sea Pheasant. It is most plentiful in the north of England and Scotland, especially in the Orkneys. It does not breed with us, but retires northward for that purpose, probably to Russia and Hudson's Bay, where it is common. It is also found in China and America; the flesh is esteemed for its fine flavour.

PINT.—A name for the Laughing Gull.

PIP or ROOP.—*A disease produced in cage birds, known by the swelling of the gland on the rump. The cure is to puncture the swelling with a needle, and anoint it with lard or fresh butter.*

PIPIT (*Anthus*, Bechstein).—*A genus of the Warbler family (*Sylviadæ*, Vigors.)*

PIPIT LARK.—A name for the Meadow Pipit.

PIRENET.—A name for the Sheldrake.

PLATEA (Linnæus.)—* Spoonbill, a genus of birds thus characterised. Bill long, broad, and thin at the end, widening into a round spoon-like form; nostrils small, placed near the base; tongue small and pointed; feet semi-palmated.*

PLOVER (*Charadrius*, Linnæus).—A genus of the Waders (*Grallatores*, Illiger.)

POCHARD (*Nyroca ferina*, Fleming.)

Anas ferina, *Linn.* Syst. 1. p. 203. 31.—Anas fera, *Raii*, Syn. p. 143. A. 10.—*Will.* p. 288. 282.—Penelope, *Briss.* 6. p. 384. 19. t. 35. f. 1.—*Ib.* 8vo. 2. p. 462.—Millouin, *Buff.* Ois. 9. p. 216.—*Temm.* Man. d'Orn. 2. p. 868.—Nyroca ferina, *Flem.* Br. Anim. p. 121.—Poker, Pochard, Red-headed Widgeon, Br. Zool. 2. No. 284.—*Ib.* fol. 156. t. Q. 5.—Arct. Zool. 2. No. 491.—*Will.* (Angl.) p. 367. t. 72.—*Albin*, 2. t. 98.—*Lath.* Syn. 6. p. 523. t. 68.—*Ib.* Supp. 2. p. 354. *Lewin's* Br. Birds, 7. t. 253.—*Pult.* Cat. Dorset. p. 20.—*Flem.* Br. Anim. p. 121. Linn. Trans. 4. p. 116. t. 14. f. 5. 6. trachea.—*Bewick's* Br. Birds, 2. t. p. 356.

Provincial.—Vane-headed Wigeon. Attile Duck. Red-headed Poker. Great-headed Wigeon. Blue-poker. Duncur.

A species about the size of a wigeon, but not so slender and elegantly formed. Weight about twenty-eight ounces; length nineteen inches; bill broad, blue, tip black; irides in some orange, others hazel; head and neck deep chestnut; lower part of the neck, breast, and upper part of the back black, with small undulated lines of

grey; back and scapulars cinereous and dusky, disposed in small undulated lines; smaller wing coverts darker; greater coverts and secondary quill-feathers blue-grey; primary quills dusky; rump and under tail-coverts black; under part of the body dusky-white, marked with numerous small dusky lines, darkest at the vent; the tail consists of fourteen feathers, dusky, dashed with ash colour; legs lead colour; feet the same, very broad.

The female differs in having the head and neck ferruginous-brown; breast and belly dusky-white, clouded with brown; under tail coverts dusky and white; in other respects like the male, but the markings less distinct.

*This species, though sometimes taken in the decoy pools in the usual manner, are by no means welcome visitors; for by their continual diving, they disturb the rest of the fowls on the water, and prevent their being enticed into the tunnels: and we are assured that they are not to be decoyed with the other ducks. Pochards, like other wild fowl, were taken in much greater abundance formerly, and in a very different manner.

The method practised, as we have been informed from good authority, was something similar to that of taking woodcocks. Poles were erected at the avenues to the decoy, and after a great number of these birds had collected for some time on the pool, (to which wild fowl resort only by day, and go to the neighbouring fens to feed by night,) a net was at a given time erected by pullies to these poles, beneath which a deep pit had previously been dug; and as these birds, like the woodcocks, go to feed just as it is dark, and are said always to rise against the wind, a whole flock was taken together in this manner; for when once they strike against the net, they never attempt to return, but flutter down the net till they are received into the pit, from whence they cannot rise, and thus we are told twenty dozen have been taken at one catch.

The *tracheal* labyrinth belonging to the male of this species is (as Dr. Latham observes) something like that of the scaup, but shorter, and of nearly the same diameter throughout. The drum-like labyrinth is more round on the upper side, but crossed with a small bony partition, as in that bird. The bony box of which the other portion consists, is scarcely elevated on this side, and on the other much less so than in the scaup; it likewise forms an obtuse angle with the rest of the trachea, but in the scaup it does not deviate from a continuation of a straight line, though forming a considerable enlargement.

It has been said that this species will not live in confinement; on

the contrary, no bird appears sooner reconciled to the menagerie. One now in our possession, that was badly wounded with a broken wing, took to feeding on corn immediately, and is now, after three years' confinement, very tame, and in high health.*

PODICEPS (LATHAM.)—Grebe, a genus of birds (*Colymbus*, LINNÆUS.)

POKE PUDDING.—A name for the Bottle Tit.

POKER.—A name for the Pochard.

POOR WREN.—A name for the Gorcock.

POPE.—A name for the Puffin.

POPPINJAY (*Picus viridis*, RAY.)

*Picus viridis, *Linn.* Syst. 1. p. 175. 12.—*Gmel.* Syst. 1. p. 433. sp. 12.—*Lath.* Ind. Orn. 1. p. 234. sp. 27.—*Raii*, Syn. p. 42. A. 2.—*Will.* 93. t. 21.—*Briss.* 4. p. 9. 1.—*Flem.* Br. Anim. p. 91.—Le Pic vert, *Buff.* Ois. 7. p. 23. t. 1.—*Ib.* Pl. Enl. 371. and 879.—*Temm.* Man. d'Orn. 1. p. 391.—Grunspecht, *Bechst.* Naturg. Deut. 2. p. 1007.—*Meyer*, Tasschenb. Deut. 2. p. 118.—*Frisch*, t. 35.—Green Woodpecker, Br. Zool. 1. No. 84.—Arct. Zool. 2. p. 277. B.—*Lewin's* Br. Birds, 2. t. 51.—*Will.* (Angl.) p. 135. t. 21.—*Haye's* Br. Birds, t. 18.—*Lath.* Syn. 2. p. 577. 25.—*Ib.* Supp. p. 110.—*Mont.* Orn. Dict.—*Pult.* Cat. Dorset. p. 6.—*Don.* Br. Birds, 2. t. 37.—*Bewick's* Br. Birds, 1. p. 116.—*Shaw's* Zool. 9. p. 183.—*Selby*, pl. 38. fig. 1. p. 103.*

Provincial.—Woodspite. Rain Bird or Rain Fowl. High Hoe. Hew Hole. Awl Bird. Yappingale. Yaffle or Yaffler. Woodwall.*

This species weighs about six ounces; length thirteen inches; the bill is dusky, two inches long; the tongue near six inches; irides white. The feathers on the crown of the head dusky, tipped with cinereous; the eyes surrounded with black; beneath which, in the male, is a crimson spot bordered with black, which in the female is wholly black; the neck, back, lesser coverts of the wings, and scapulars, are green; the rump pale yellow; quill-feathers dusky, the greater spotted on each web with white, the lesser very faintly spotted on the exterior webs, and deeply bordered with green; the coverts of the ears and whole under parts are of a very pale yellow-green; the tail-feathers are stiff, pointed, alternately barred with dusky and green, tipped with black, except the outer feathers; legs ash-colour; claws much hooked.

This species is not uncommon about most of the wooded parts of England; its food is entirely insects. The formation of the whole of this tribe is admirably adapted to their mode of life. The bill, which is strong, and formed like a wedge at the point, enables them to force their way through the sap of a tree, when by instinct it is discovered to be decayed at heart. With this instrument it dislodges the *larvæ* of a numerous tribe of the coleopterous insects, as well as that stinking caterpillar the *larva* of the goat moth, (*Cossus ligniperda*,) of which the bird frequently smells.

The tongue is no less wonderfully formed for insinuating into all the smaller crevices to extract the hidden treasure, by transfixing the larger insects, or by adhesion withdrawing the smaller; for, like the wryneck, it is furnished with a glutinous substance for that purpose. Nor can we less admire the short and strong formation of the legs, and the hooked claws, so well calculated to enable them to climb and affix themselves against the body of a tree, either to roost, or perforate a hole; to assist which the stiff tail is of infinite use. The jarring noise so frequently heard in woods, in the spring, is occasioned by one or other of this genus, which, from frequent observation, we have no doubt is used as a call by both sexes to each other. It is curious to observe them try every part of a dead limb till they have discovered the most sonorous, and then the strokes are reiterated with such velocity that the head is scarcely perceived to move, the sound of which may be distinctly heard half a mile.

Dr. Plot was mistaken when he conceived this noise to be produced by the nuthatch, who says, in describing that bird, "that, by putting their bill into a crack in the bough of a tree, can make such a violent sound as if it was rending asunder."

Woodpeckers are commonly seen climbing up a tree, but never down, as some have asserted. The hole which they make is as perfect a circle as if described by a pair of compasses. For the places of nidification the softer woods are attacked, the elm, ash, and particularly the asp, but rarely the oak. These are only perforated where they have symptoms of decay; and the excavations are frequently deep, to give security to their eggs. This species lays four or five white eggs, weighing about two drams, which are placed on the rotten wood, without any nest. The young birds have the appearance of crimson on their heads, but not so bright as in adults.

Ants and their eggs are a favourite repast of this species, for which they are frequently seen on the ground searching the emmit hills. The tongue is here made use of instead of the bill, similar to that of the wryneck. Its note is harsh, and its manner of flying undulated.

"Beauty of plumage," says Bechstein, "is the only good quality we can perceive in this species; for in confinement he is so fierce and mutinous, that it becomes necessary to restrain him with a chain; nevertheless, one or two of these birds form a very agreeable variety in the aviary: its favourite haunt, during the summer, is the skirts of the forests; but on the approach of winter, it approaches the villages, flying from one garden to another during the day, and retiring to a hole in some decayed tree on the approach of evening."

POST BIRD.—A Kentish name for the Beam Bird.

PRATINCOLE (*Glareola torquata*, MEYER.)

ADULT.

*Glareola torquata, *Meyer*, Tasschenb. Deut. 2. p. 404.—Glarèole à Collier, *Temm.* Man. d'Orn. 2. p. 500.—Hirundo Pratincola, *Linn.* Syst. p. 345. sp. 12.—*Gmel.* Syst. 1. p. 695.—*Bullock*, in Trans. of Linn. Soc. 11. p. 177.—Glareola, *Briss.* 5. p. 141. t. 12. f. 1.—Hirundo marina, *Raii*, Syn. p. 72.—*Will.* p. 156.—La Perdrix de Mer, *Briss.* Orn. 5. p. 141. f. 1.—*Buff.* Ois. 7. p. 544.—*Ib.* pl. Enl. 882.—Das Rothfussige Sandhuhn, *Bechst.* Naturg. Deut. 4. p. 457. t. 13.—Austrian Pratincole, *Lath.* Syn. 5. p. 222. t. 85.—*Mont.* Orn. Dict. and Supp.

YOUNG.

Glareola Austriaca, Senegalensis, et Nævia, *Gmel.* Syst. 1. p. 695. sp. 1. 2. and 3. *Lath.* Ind. Orn. 2. p. 753. and 754. sp. 1. 2. and 3. and the varieties.—*Briss.* 3. p. 147. and 148.—Glareola torquata, *Ib.* 5. p. 145.—La Perdrix de Mer, La Grise, La Brune, et La Giarole, *Buff.* Ois. 7. p. 544. et 545.—Das Braunringige Sandhuhn, und Gefleckte Sandhuhn, *Bechst.* Naturg. Deut. 4. p. 461. var. A. and B.—Collared, Coromandel, Senegal, Spotted, and other varieties, *Lath.* Syn. 5. p. 224. and 225.—*Selby*, pl. 63. p. 322.*

A bird of this species was shot near Liverpool, on the 18th of May, 1804, as we have been assured by Mr. Bullock, to whom the bird was brought before it was cold, which specimen is now in the collection of Lord Stanley. It was shot in the act of taking beetles on the wing, the remains of which were found in its stomach.

The length is about ten inches. Bill black, short, convex, or arched; the upper mandible pointed, slightly hooked, and longest; under mandible at the base, and corners of the mouth coral-red; irides said to be reddish; the colour of the plumage on the upper parts of the bird is brown; the crown of the head, and the neck above, are tinged with rufous; the back and scapulars, slightly dashed with greenish-bronze: the throat is yellowish-buff; from the lower part of the eye originates a black line, which passes round below the throat, and encircles that part: across the lower neck, and upper breast, the feathers are rufous-brown; the lower breast buff, like the throat; the belly, sides of the rump, and coverts of the tail, both above and below, are white; the wings are very long, and formed like those of a swallow, being extremely narrow, and having the first feather the longest; the prime quills are dusky-brown; the secondaries are paler, slightly tipped with white; the tertials and coverts, like the scapulars; along the edge of the wing, close to the spurious wing, is whitish; the under coverts of the wings are partly bright ferruginous, and partly black, the middle series being of the former colour: the long feathers on the sides of the body, close to the junction of the wings, called the under scapulars, are also of the same ferruginous colour: the tail, like the common swallow, is greatly forked, the feathers more or less white at the base, with their ends dusky-brown, but the last does not occupy above one third of

their length, except in the middle ones; the outer feather is very slender, and nearly an inch longer than the second, the others decrease in length proportionably, till the whole length of the four middle feathers is not above half so long as the outer; legs and toes rufous-brown; claws dusky black, not much hooked, and the middle claw long, imperfectly pectinated on the inside, and truncated.

We are informed this species inhabits Germany, particularly the borders of the Rhine, near Strasburgh, and is sometimes seen in France, especially Lorraine; but is most plentiful in the Deserts towards the Caspian Sea, frequenting the dry plain in great flocks. Is also common throughout the whole Desert of Independent Tartary, as far as the rivers Kamyschlossca and Irtish, but no further in Siberia; and in general is not observed beyond fifty-three degrees to the northward. Another specimen was killed by Mr. Bullock in Unst, in Zetland, the 13th of August, 1812.

PROCELLARIA (Linnæus.)—*Petrel, a genus thus characterised. Bill of mean length, or longer than the head, very hard, cutting, depressed and dilated at the base; point compressed, arched, both the mandibles channelled, suddenly bent to a point, the under one compressed and grooved, forming an angle; nostrils prominent upon the surface of the bill, reunited and concealed in a tube, which forms a single opening, or shews two distinct orifices; legs middle sized, often long, slender, shanks compressed; three toes before, long, wholly webbed; hind toe wanting, all but a claw much pointed; wings long, the first quill the longest.*

PROVENTRICULUS.—* Stomach-porch, an enlargement of the gullet before it enters the true stomach or gizzard, and well supplied with glands. This is very large in the ostrich, small in poultry, and wanting in the kingfisher.[1] It is also termed *Bulbus glandulosus.**

PTARMIGAN (*Lagopus vulgaris*, Vieillot.)

* Tetrao Lagopus, *Linn.* Syst. 1. p. 274. 4.—Faun. Suec. No. 203.—*Gmel.* Syst. 1. p. 749.—*Raii*, Syn. p. 55. 5.—*Will.* p. 127.—*Briss.* 1. p. 216. 12.—Tetrao rupestris, *Gmel.* Syst. 1. p. 751. sp. 24.—*Lath.* Ind. Orn. 2. p. 640. sp. 11.—Lagopus vulgaris, *Flem.* Br. Anim. p. 43.—Le Lagopéde, *Buff.* Ois. 9. p. 264. t. 9.—*Ib.* pl. Enl. 129. female in winter plumage, and pl. 494. female assuming the summer plumage.—L'Attagas blanc, *Buff.* Ois. 2. p. 262.—Tetras Ptarmigan, *Temm.* Man. d'Orn. 2. p. 468.—*Ib.* Pig. et Gall. 3. p. 185. t. anat. 10. f. 1. 2. and 3.—Haasenfüssige Waldhuhn, *Bechst.* Naturg. Deut. 3. p. 1347.—*Meyer*, Tasschenb. Deut. 1. p. 298.—*Ib.* Vög. Deut. 2. t. Heft. 19. winter and summer plumage.—Ptarmigan, Br. Zool. 1. No. 95. t. 43.—Arct. Zool. 2. p. 315. D.—*Lewin's* Br. Birds, 4. t. 134.—*Lath.* Syn. 4. p. 741. 10.—*Walc.* Syn.

[1] Blumenbach, Anat. Comp., p. 97.

2. t. 182.—*Mont.* Orn. Dict.—*Ib.* Supp.—*Don.* Br. Birds, 1. t. 12.—Rock-Grous, *Lath.* Syn. Supp. p 217.—Arct. Zool. 2. No. 184.—White Grous, *Bewick's* Br. Birds, 1. p. t. 303. old male.—*Selby*, pl. 59. fig. 2. and 59*. p. 310.*

This species weighs about twenty ounces; length fifteen inches; bill black; irides hazel; the summer plumage is a mixture of light brown and ash colour, marked with minute bars and small dusky spots; the head and neck with broad bars of black, white and rust colour; belly white; wings white, with black shafts to the greater quills; some are more rufous on the head, supposed to be the male sex. In the month of September it begins to change its plumage, and about the middle of October it is of a pure white all over, except the shafts of the wings, and tail, which last consists of sixteen feathers, the two middle ones white, the rest black, with a little white on the tops of the second feathers from the middle: in the male, also, there are black feathers covering the nostrils, and from thence to the eyes. This description is taken from the Ptarmigan of the Scottish highlands; but in those received from Norway, all the black feathers of the tail were tipped with white, largely so in the middle feathers, but gradually decreasing till almost lost on the exterior ones. When the tail is closed, the black is completely concealed by the coverts, which are white, and reach to the end.

In some of the birds which are confined to those regions, where, for one half of the year at least, the surface of the earth is covered with boundless snow, an autumnal change in the plumage of both old and young takes place. Here we perceive the Ptarmigan invariably effect this curious, and we may add, most providential change; for if the young of these birds at first assumed their snowy winter plumage, while yet the surface of the ground was not consonant with their colour, few would escape the piercing eye of the falcon, or the eagle, in the lofty and exposed situations they are found to inhabit. It has, therefore, been wisely ordered, that these should at first appear like their parents, in a mottled plumage, similar to the lichen-covered rocks they frequent, and continue in this dress till the approach of winter, when old and young become equally as white as the surrounding snow.

It is a very local species with us, confined to the loftiest mountains of the north. Some few are yet found to the south of the Tweed, but it is more plentiful on some of the highlands of Scotland, from which it rarely or never descends, even in the severest season, when nothing but snow is to be seen.

It makes no nest, but deposits ten or twelve eggs on the bare ground, amongst the rocks. These are of a dirty white, spotted and blotched

with rufous-brown, something larger than those of the partridge. It is by no means a shy bird, but will suffer the sportsman to approach very near. The herdsmen frequently knock them down with sticks. In winter they assemble together in flocks. They are called birch partridges in Nova Scotia; with us white game, or white partridge.

We are inclined to believe the white partridge of Mr. Edwards is a mere variety of this bird, contrary to the opinion of that great naturalist, Mr. Pennant, who says he has received both from Norway. But with the most diligent inquiry, we cannot find more than one species known in that country, where they are called Rype, but pronounced Reuper; and in the many we have seen, no specific distinction could be discovered.

PUCKERIDGE.—A name for the Nightjar.

PUFFIN (*Puffinus Anglorum*, RAY.)

Procellaria Puffinus, *Linn.* Syst. 1. p. 213. 6.—*Gmel.* Syst. 2. p. 566.—*Lath.* Ind. Orn. 2. p. 824. 11.—*Briss.* 6. 131. 1.—*Ib.* 8vo. 2. p. 395.—Puffinus Anglorum, *Raii*, Syn. p. 134. A. 4.—*Will.* p. 252.—*Flem.* Br. Anim. p. 137.—Avis Deomedia, Shearwater, *Raii*, Syn. p. 133. 1. and A. 2.—*Will.* p. 251.—*Ib.* (Angl.) p. 332. 334.—Le Puffin, *Buff.* Ois. 9. p. 321.—Procellaria Anglorum, *Temm.* Man. d'Orn. 2. p. 806.—Manks Puffin, *Edw.* t. 379.—*Will.* (Angl.) p. 333.—Shearwater Petrel, Br. Zool. 2. No. 258.—*Ib.* fol. 146. t. M.—Arct. Zool. 2. No. 462.—*Lath.* Syn. 6. p. 406. 11.—*Ib.* Supp. p. 269.—*Lewin's* Br. Birds, 6. t. 218.—*Walc.* Syn. 1. t. 90.—*Pult.* Cat. Dorset. p. 19.

This species weighs seventeen ounces; length fifteen inches. The bill is an inch and three quarters long, yellow, tipped with black; the head and whole upper side of the body, wings, tail, and thighs, black; the under parts, from chin to vent, white; the legs are weak and compressed; whitish before, and dusky behind. These birds do not make their appearance often in the south, but are found in the Orkney Isles and in the Isle of Man, in the breeding season, where they take possession of rabbit-burrows or other holes, and lay one white egg, blunt at each end. The young are fit to take in August, when great numbers are killed and barrelled with salt, which the inhabitants boil and eat with potatoes. They are said to make their appearance first in February, but not to settle at the breeding place till April, and to depart by the beginning of September. They are called in the Isle of Man, Manks Puffin; in the Orkneys, Lyre.

PUFFINET.—A name for the Scraber.

PULSE OF BIRDS.—* The heart of birds, and consequently their pulse, beats much quicker than in larger animals, ranging from a hundred to one hundred and ten beats in the second.*

PULVERISING.—* Amongst the singularity of manners, perhaps there is none more extraordinary than that which seems peculiar to a few

species, by some called pulverisers, which is that of dusting themselves; it is observable only in the gallinaceous tribe, the sky lark, wood lark, and house sparrow. These are frequently seen in hot weather to roll themselves in the dust, and by means of their wings and legs throw it all over their bodies. For what purpose it is intended, is difficult to ascertain. Some have imagined it is to destroy the pediculi with which these birds abound; but as all other birds are troubled with lice, and do not pulverise, the opinion does not seem to be well founded. Others have supposed that it is to cool themselves, and that such birds do not wash; but in this also they are mistaken, for no bird bathes more frequently than the sparrow.*

PURPLE HERON (*Ardea purpurea*, LINNÆUS.)

Ardea purpurea, *Gmel.* Syst. 1. p. 626. sp. 10.—Ardea Botaurus, *lb.* 1. p. 636. sp. 50.—*Lath.* Ind. Orn. 2. p. 698. sp. 74.—Botaurus major, *Briss.* 5. p. 455.—Ardea rufa, *Scopoli*, Ann. 1. 119.—Crested Purple Heron, and Rufous Heron, *Lath.* Syn. 5. p. 95. 99.—Greater Bittern, *lb.* 5. 58. 18.—Purple Heron, *Temm.* Man. d'Orn. 2. p. 570.

YOUNG.

Ardea purpurata, *Gmel.* Syst. 1. 541. sp. 63.—*Lath.* Ind. Orn. 2. p. 698. sp. 75.—Ardea variegata, *Scopoli*, p. 120.—Ardea caspica, *Gmel.* Syst. Reise, 2. p. 193. 24.—*Lath.* Ind. Orn. sp. 73.—Ardea monticola, *La Perouse*, p. 44.—Purple Heron, *Lath.* Syn. 5. p. 96.—*Mont.* Orn. Dict.—African Heron, *Mont.* Supp. to Orn. Dict.—*Lath.* Syn. Supp. 1. p. 237.

This bird is smaller than the common heron; length three feet. Bill dusky-yellow, blackish at the point, seven inches long; the head and greater part of the neck are pale ferruginous; chin and throat white; the feathers on the top of the head long, black, and forming a sort of crest; from the head a list of black runs down the back of the neck for two-thirds its length; from the eye on each side another list continues down to the breast; on the lower part of the neck the feathers are long, loose, and of a deep ash-colour; the breast ferruginous chestnut; back very deep ash-colour; quills and tail black; the lower feathers on the rump like those on the fore part of the neck, but mixed with ferruginous; belly pale ferruginous ash-colour; legs dull yellow; the fore part of them, the toes, and claws, black.

Not more than two of this species are mentioned to have been met with in this country, one of which is stated to have been shot in Ashdown Park, near Lambourn, Berks, now in the Leverian Museum. *It may therefore be considered as one of our rarest stragglers. Temminck and Fleming consider the African Heron (*Ardea Caspicæ*, LINNÆUS) as the young of this species. The bill and feet of that variety are yellow; the crest composed of black feathers, about three inches long; abroad black line passes from the nape of the neck to the

beginning of the back, and another on each side; the long feathers of the breast and rump are variagated with ferruginous.

This species is very rare in Holland, and all the northern parts of Europe, where it only occurs accidentally. It builds its nest among the reeds under the bank of the lakes and rivers, or in the coppice or brushwood of the marshes and fens, in which it lays three eggs, of an ashy-green colour. It is more abundant towards the south; on the confines of Asia and Africa, they are met with in great numbers.*

PURPLE SANDPIPER (*Tringa maritima*, Brunnich.)

Tringa nigricans, Linn. Trans. 4. p. 40. t. 2.—Tringa Striata, *Gmel.* Syst. 1. p. 672.—*Briss.* & *Retz.* p. 182.—*Lath.* Ind. Orn. 2. p. 733.—Totanus striatus, *Briss.* 5. p. 196. 5.—*Ib.* 8vo. 11. p. 263.—Le Chavalier Rayè, *Buff.* Ois. 7. p. 516.—Striated Sandpiper, Arct. Zool. 11. No. 383.—*Lath.* Syn. 5. p. 176.—Purple Sandpiper, *Walc.* Syn. 2. t. 155.—*Flem.* Br. Anim. p. 110.—Sea Sandpiper, Linn. Trans. 4. p. 22. t. 1 ?—Tringa Maritima, *Brunn.* Orn. Bor. p. 182.—*Temm.* Man. d'Orn. 2. p. 619.—Selninger Sandpiper, *Lath.* Syn. 5. p. 173. 15?—Ind. Orn. 2. p. 731. 18?—Arct. Zool. 2. p. 480. C.

This species rather exceeds the dunlin in size; the length eight inches and a half. The bill is slender, an inch and a quarter long, tapering towards the point, a very little curved, and of a dull red-colour, except at the apex and sides, which are dusky; irides hazel; the head and neck dusky black; eyelids whitish; the throat white; back and scapulars black, glossed with purple and edged with ash-colour; the wing coverts black, tipped with white; the larger ones above the primores deeply so; quills black, slightly edged with white on the exterior webs, except three of the secondaries, which are almost wholly white; these, with the white-tipped coverts, form a slight oblique bar on the wing when extended; the shafts white; breast and all beneath white, prettily spotted with black, except the middle of the belly and vent; the rump, coverts of the tail, and four middle tail feathers, black, glossed like the back; the other tail feathers light cinereous; in all twelve; the legs and toes dull red; claws black and blunt; toes nearly divided to their origin; middle toe an inch long.

This bird was killed at Laugharne, on the coast of Caermarthenshire, in January, in company with the dunlin; two others were shot there the same winter, and were called by the fishermen red-legs; but these did not come under our inspection. The one from which the above description is taken, is now in our collection. We have since been favoured with the skin of one from Mr. Boys, of Sandwich, which was killed on that coast in the winter of 1799. It corresponded exactly with the above, except that the bill was rather longer and straight, and the breast more dusky.

When the number of synonimes attached to this bird are considered, they will clearly evince the necessity of more than ordinary attention in the discrimination of the species of this genus. Here are four supposed species brought into one; and if the Black Sandpiper of the British Zoology was added as a trifling variety, we suspect we should not be far from correct.

In the latter end of November, 1807, Mr. Anstice favoured us with two specimens of the Purple Sandpiper that were shot in Somersetshire, and bought in the market of Bridgewater. These, upon dissection, proved to be of different sexes. In both these specimens the upper part of the breast is dusky-grey; the sides of the breast near the shoulder black; the legs dull orange; the upper part of the bill towards the base orange, paler at the base of the under mandible. In the gizzards of these birds were fragments of small *Cancri onisci* and shells, with several perfect fry of *Turbo littoreus*. *"The young of an year old," says Temminck, "have the feathers on the crown of the head, the back, scapulars, secondary quill feathers, and the middle tail feathers, of a dark black; the margins and tips bordered with a bright red; all the lesser coverts of the wing terminating with large white borders, with longitudinal spots on the belly and sides; in this plumage, it is the Knot of Pennant, Br. Zool., p. 123. This species is very common in Holland, and in the country in Norway, along the shore of the Baltic, and the Mediterranean, and Hudson's Bay; but with all his opportunities, Temminck was unable to hear of its nest.*

PURRE.—A name for the Dunlin.

PUTTOCK.—A name for the Kite and for the Buzzard.

PYRRHOCORAX (Cuvier.)—*Chough, a genus thus characterised. Bill middle-sized, somewhat slender, more or less arched and cutting; compressed; a little awl-shaped at the point, with a very slight slope, or smooth; nostrils at the sides of the base ovoid, open, quite hid by bristles directed forwards; legs strong and robust; shank longer than the middle toe; four toes almost quite separated; claws strong and arched; wings, the three first quills gradually slanting; the fourth and fifth the longest.*

Quail.

QUAIL (*Coturnix major*, Brisson.)

*Perdix Coturnix, *Lath.* Ind. Orn. 2. p. 651. sp. 28.—Tetrao Coturnix, *Linn.* Syst. 1. p. 278. 20.—Faun. Suec. No. 206.—*Gmel.* Syst. 1. p. 765.—*Raii*, Syn. p. 58. A. 6.—*Will.* p. 121. t. 29.—*Briss.* 1. p. 247.—Coturnix major, *Ib.* 1. p. 251. Coturnix vulgaris, *Flem.* Br. Anim. p. 45.—La Caille, *Buff.* Ois. 2. p. 449. t. 16.—*Ib.* pl. Enl. 170.—*Temm.* pig. et Gall. 3. p. 478.—*Ib.* Man. d'Orn. 2. p. 491.—Le Crokiel, *Buff.* Ois. 2. p. 255.—Wachtel Feldhuhn, *Bechst.* Naturg. Deut. 3. p. 1402.—*Meyer*, Tasschenb. Deut. 1. p. 306.—*Frisch*, Vög. t. 117. male and female.—De Wachtel, *Sepp.* Nederl. Vög. t. p. 143.—Common Quail, Br. Zool. 1. No. 99.—Arct. Zool. 2. p. 320. B.—*Albin*, 1. t. 30.—*Will.* (Angl.) p. 169.—*Lewin's* Br. Birds, 4. t. 138.—*Lath.* Syn. 4. p. 779. 24.—*Ib.* Supp. p. 222.—*Mont.* Orn. Dict. 2.—*Ib.* Supp.—*Walc.* Syn. 2. t. 185.—*Pult.* Cat. Dorset. p. 7.—*Bewick's* Br. Birds, 1. p. t. 308. male.—*Selby*, pl. 62. p. 319.*

This species is about seven inches and a half in length; bill dusky; irides hazel; in old male birds yellow: the crown of the head is black, transversely marked with rufous-brown; down the middle is a yellowish white line; above the eye, passing backwards, is another line of the same colour; on the chin and throat is a black mark, which turns upwards to the ears; the rest of those parts are white; the hind part of the neck, back, scapulars, and tail coverts are rufous-brown; the middle of each feather streaked with yellowish white, surrounded more or less with black; sides the same, but has not so much of the white streaks; breast light ferruginous brown; shafts white; belly

paler; wing coverts pale rufous-brown, streaked like the back, but more minutely; quills dusky, the outer webs more or less mottled with yellowish white; tail dusky, tipped with white, and consists of twelve short feathers hid by the coverts.

Ths female differs in having no black chin or throat, but only a dusky mark from the ears passing downwards; the breast is also spotted with dusky, and the coverts of the wings crossed with yellowish white bars; in other respects the sexes are alike. The legs of both are of a light yellowish brown.

The Quail is found in all parts of the old world, but not in America. It is a bold bird, and is frequently used in China for fighting, as we do our game cocks. In the flight season, when these birds migrate to and from the north, they are found in prodigious quantities in all the islands of the Archipelago, which contains no less than forty-five principal ones. It is said that a hundred thousand have been taken in one day on the west coast of the kingdom. The nest is formed with very little care, and the eggs are deposited on the ground, in a hole scratched for the occasion. Dr. Latham remarks that he has known two instances where twenty eggs have been found in the nest of a Quail. This prolificacy is the occasion of the immense flocks that are annually noticed on their passage, spring and autumn, in various parts of the south of Europe, especially in the Crimea, and borders of the Black Sea. In the island of Stefano, they arrive in great flights in the month of May, from the coast of Africa. In this country some few are said to remain the whole year in the southern counties, and in the vicinity of the sea, probably individuals of later brood, who have been unable to accompany the main body in the autumnal migration.

If full credit is to be given to Baron de Tott, these birds migrate by night; a circumstance apparently extremely unnatural, because none of those birds, whose natural habits oblige them to feed by day, and roost, or repose by night, can see distinctly after the dusk of the evening, and are so foolishly blind, and so extremely fearful of flying, that nothing but alarm can force them to take wing. It is also asserted, that these birds, during the fine weather, are dispersed over the Crimea, but assemble at the approach of autumn, to cross the Black Sea, over to the southern coast, whence they pursue their course into warmer regions: the order of this migration is said to be invariable. Towards the end of August, the Quails, in a body, choose one of those serene days, when the wind, blowing from the north at sun-set, promises them a fine night; they then repair to the strand, take their departure at six or seven in the evening, and have finished a journey of fifty leagues by

day-break. Nets are spread on the opposite shore, and the bird-catchers, waiting for their arrival, take them in great abundance.

Such an account has all the appearance of theory, not only from the preconcerted plan of migration, and the unnatural time of flight, but also the time stated for the performance of so short a journey for an aerial animal endowed with such powers of rapid transportation. Instead of the distance of one hundred and fifty miles, requiring the whole of an equinoctial night (twelve hours,) such a journey would with ease be performed in less than two hours. Besides, it is only nocturnal feeders that fly by night, as we have before noticed; and these are either of the aquatic kind, or soft and long billed birds, (nocturnal birds of prey excepted,) who feel out their food, and are capable of finding it by other means than that of sight. Whereas granivorous birds cannot feed even by moonlight, and actually require daylight for all their operations, and sleep by night. In respect therefore to the migrative part of the above account, it is unnatural and inconsistent with daily observations; but that vast numbers of Quails visit and revisit the borders of the Black Sea, twice in the year, cannot be doubted.

*Mr. Galt, in his Voyages and Travels, speaks of the migration of Quails from the continent of Europe, in September, to Sicily. "Being fatigued by their flight," says that author, "they are easily shot on their arrival. The pleasure which the Palermitans take in this sport is incredible. Crowds of all ages and degrees assemble on the shore, and the number of sportsmen is prodigious." The number in boats is described to be greater than those on land, and all impatiently watching night and day the expected arrival of the Quails. "Enviable is the lot," says this writer, "of the idle apprentice, who, with a borrowed old musket or pistol, no matter how unsafe, has gained possession of the farthest accessible rock, where there is but room for himself and his dog, which he has fed with bread only all the year round for these delightful days, and which sits in as happy expectation as himself for the arrival of the Quails."

The Quail remains all the year in Portugal, and we are assured by an excellent sportsman, Captain Latham, that he thinks they are more plentiful in that country in winter than in summer.

That the migration of these birds was well known in the early part of the Christian era, is evinced by several passages in the sacred writings. In the passage of the Israelites out of Egypt, we find, in the xvi. chap. of Exodus, the following:—"And it came to pass, that at even the Quails came up, and covered the camp." Again, in the xi. chap. of Numbers:—"And there went forth a wind from the Lord, and brought

Quails from the sea, and let them fall by the camp, as it were a day's journey on this side, and as it were a day's journey on the other side round about the camp, and as it were two cubits high upon the face of the earth. And the people stood up all that day, and all that night, and all the next day, and they gathered the Quails: he that gathered least gathered ten homers: and they spread them all abroad for themselves round about the camp." Bechstein gives a curious account of the manner in which these birds are taken in Germany. The male is usually caught in a trap, with the assistance of a bird-call, so formed as to imitate exactly the cry of the female in the pairing season, when if the male has not yet met with a mate, he runs eagerly into the snare prepared for him. "As soon as the song of the bird you wish to procure, is heard," says he, "it is necessary to advance softly to within five or six paces of his station, and there place the trap among the wheat, in such a position as will suffer it to fall level with the ground, and then retire a little. The Quail will then utter his song; to which reply with two or three notes, after the manner of the female, from the call, if this is not done with care, the bird will immediately suspect treachery, and either retire or remain silent; but if skilfully done, the bird proceeds directly to the call: if by chance he miss the trap, he will go so near, as to be within reach of the hand. In this case it is safest to retire softly to the opposite side of the trap, and again repeat the call."

"Besides beauty of form and plumage," says the same author, "the song of this bird is no slight recommendation to the amateur. In the breeding season, that of the male commences by repeating softly, tones resembling *verra, verra*, followed by the word *pievervie*, uttered in a bold tone, with the neck raised, the eyes shut, and the head inclined on one side; those who repeat the last syllable, ten or twelve times consecutively, are the most esteemed: that of the female only consists of the syllables *verra, verra, pupu pupu*, the two last syllables being those by which the male and female attract each others attention. When alarmed or enraged, their cry resembles the word *guillah;* but at other times it is no more than a murmur resembling the purring of a cat. The Quail never sings when left to run about in a light room; but in a darkened room, or cage, it will often sing during the whole night."*

QUA BIRD.—A name for the Night Heron.

QUEST.—A name for the Ring Dove.

QUINCK.—A name for the Goose.

QUINARY SYSTEM.—A distribution or arrangement of birds in groups of fives, proposed by Mr. Vigors, on the principles of Mr. W. S. Mac Leay.—[See Introduction.]

Raven.

RAFTER.—A name for the Beam Bird.

RAIL (*Rallus*, Linnæus.)—A genus of Waders (*Grallatores*, Illiger.)

RAIN BIRD.—A name for the Poppinjay.

RALLIDÆ (Leach.)—*Rails, a family of Wading Birds (*Grallatores*, Illiger.)*

RALLUS (Linnæus.)—*Rail, a genus thus characterised. Bill longer than the head, slender, slightly arched or straight, compressed at the base, cylindric at the point; upper mandible furrowed; nostrils at the sides of the bill, slit lengthwise in the furrow, half shut by a membrane, and pierced from part to part; legs long, strong, a small space naked above the knee; three toes before, and one behind; the fore toes divided, the hind toe joined upon the shank; wings middle sized and rounded; the first quill much shorter than the second, third, and fourth, which are the longest in the wing.*

RAPTORES (Illiger.)—*Birds of prey.*

RASORES (Illiger.)—*Scratchers, a family of birds who scratch their food from the earth.*

RAVEN (*Corvus corax*, Linnæus.)

Corvus corax, *Linn.* Syst. 1. p. 155. 2.—Fauna Suec. No. 85.—*Gmel.* Syst. p. 364. sp. 2.—*Lath.* Ind. Orn. 1. p. 150. 1.—*Flem.* Br. Anim. p. 87.—Corvus, *Briss.* 11. p. 8. 1.—*Raii*, Syn. p. 39. A. 1.—Le Corbeau, *Buff.* Ois. 3. p. 13. t. 2.—*Ib.* pl. Enl. 495.—Corbeau noir, *Temm.* Man. d'Orn. 1. p. 107.—Kolkrabe, *Bechst.* Naturg. Deut. 2. p. 148.—*Meyer*, Tasschenb. Deut. 1. p. 93.—Raven, Br. Zool. 1. p. 218. 74.—Arct. Zool. 2. No. 134.—*Lewin's* Br. Birds, 1. t. 33.—*Lath.* Syn. 1. p. 367. 1.—*Ib.* Supp. p. 74.—*Mont.* Orn. Dict.—*Ib.* Supp.—*Bewick's* Br. Birds.—*Pult.* Cat. Dorset. p. 4.—*White's* Hist. Selb.—*Wils.* Amer. Orn. 9. p. 113.—*Selby*, pl. 27*. p. 67.*

Provincial.—Corby.

This is the largest species of the crow genus; there is no difference in the plumage of the sexes. The male weighs about two pound seven ounces; the female four or five ounces more; length near two feet; the bill is black, strong, and thick, two inches and three quarters in length; nostrils covered with bristles, which reach more than half way down the bill; irides dusky; the whole plumage is black, the upper parts glossed with blue; the under dull and dusky; tail consists of twelve feathers, somewhat rounded; about the throat the feathers are long, loose, and sharp pointed.

The Raven is a very hardy, crafty, and wary bird; is found in all climates, from the frozen shores of Greenland to the regions of the torrid zone. The *corvus australis* of Gmelin, which Captain Cook found in the Friendly Isles, in the South Seas, is probably no other than a variety of this bird.

It is a voracious species, and seems to possess much of the habits of the vulture; and, like that tribe, it is patient in hunger, and possesses the sense of smell in an exquisite degree of perfection. Even at Hudson's Bay, where the severity of the frost rapidly destroys the effluvia of dead matter, these birds assemble from all quarters very soon after the slaughter of any animal, glut themselves in plenty, retire to a small distance to digest, and then return again to their meal. * "This supposed faculty of smelling death," says Mr. Knapp, "formerly rendered their presence, or even their voice, ominous to all; as,

> 'That hateful messenger of heavy things,
> Of death and dolour telling;'

and the unusual sound of their harsh croak still, when illness is in the house, with some timid and affectionate persons, brings old fancies to remembrance, savouring of terror and alarm." * It renders itself highly useful by devouring putrid matter, which would be highly obnoxious; and on this account it would be treated with veneration, if its appetite

was thus confined; but as it destroys young lambs and sickly sheep, which it makes a prey of by first picking out their eyes, the husbandman holds it in detestation. Young chickens and ducks are no less respected by this carnivorous bird.

It is easily domesticated, and is very mischievous, readily catching up any thing glittering and hiding it. We have been assured, by a gentleman of veracity, that his butler having missed a great many silver spoons and other articles, without being able to detect the thief for some time, at last observed a tame Raven with one in his mouth, and watched him to his hiding-place, where he found more than a dozen.

The Raven generally makes choice of the largest trees to build in. The nest is formed of sticks, and lined with wool, hair, and various other substances; it is commonly placed in the fork of the larger branches. It lays five or six eggs of a bluish-green colour, blotched and spotted with brown and ash-colour, somewhat larger than that of a crow; their weight from six or seven drams. It is no unusual circumstance for these birds to make their nest contiguous to a rookery, and by their continual depredations on the nests of that republic, completely to drive them away. Several such instances have occurred to our knowledge, where the Ravens were observed to rob the rook's nest of their callow brood for the purpose of feeding their own young; and it has been long before the colony recovered its usual population. This is one of the earliest breeders amongst British birds, frequently commencing their nest in the middle of February. *White, of Selborne, describes the nest of a pair of these birds in his usual interesting manner. "In the centre of a grove," says he, "stood an oak, which, though shapely and tall on the whole, bulged out into a large excrescence about the middle of the stem. On this a pair of Ravens had fixed their nest for such a series of years, that the oak was distinguished by the name of the Raven's Tree. Many were the attempts of the neighbouring youths to get at the eyrie: the difficulty whetted their inclinations, and each was ambitious of surmounting the ardent task. But when they arrived at the swelling, it jutted so in their way, and was so far beyond their grasp, that the most daring lads were awed, and acknowledged the undertaking to be too hazardous. So the Ravens built on, nest upon nest, in perfect security, till the fatal day arrived in which the wood was to be levelled; it was in the month of February, when they usually sit. The saw was applied to the trunk; the wedges were inserted into the opening; the woods echoed to the heavy blows of the mallet; and the tree nodded to its fall; but still the dam sat on. At last, when it gave way, the bird was flung from the nest; and though

her parental affection deserved a better fate, was whipped down by the twigs, which brought her dead to the ground."

The sable plumage, and harsh croaking voice of these birds, added to their habits and supposed longevity, have furnished the poets of all ages with numerous similitudes. The Moor of Venice says—

> " It comes o'er my memory,
> As doth the Raven o'er the infected house,
> Boding to all—"

which, no doubt, alludes to this bird's supposed habits of flying over the house containing a person whose dissolution is at hand. " In fine weather," says Selby, " Ravens fly at a considerable height, and perform various rapid evolutions. While thus engaged, they utter a peculiar and quickly-repeated note, unlike their usual coarse and disagreeable croak." *

They sometimes breed on our rocky coasts, where they choose the most inacessible places for nidification. At this time they are excessively bold, and will not even suffer the falcon to approach their nest unpunished. The male and female pair for life, and drive their young from their haunt as soon as they are able to provide for themselves. It is sometimes found quite white or pied.

RAZOR-BILL (*Alca Torda*, Linnæus.)

Alca Torda, *Linn.* Syst. 1. p. 210. 1.—*Gmel.* Syst. 2. p. 551.—*Lath.* Ind. Orn. 2. p. 793. 5.—*Briss.* 6. p. 892. t. 8. f. 1.—*Ib.* 8vo. 2. p. 383.—*Flem.* Br. Anim. p. 130.—*Temm.* Man. d'Orn. 2. p. 936.—Alca Hoieri, *Raii*, Syn. p. 119. A. 3.—*Will.* p. 243. t. 64, 65.—Le Pingoin, *Buff.* Ois. 9. p. 390. t. 27.—Razorbill, Auk, Murre, Marrot, Br. Zool. 2. No. 230. t. 82.—*Ib.* fol. 136.—*Edw.* t. 358. f. 2.—*Lath.* Syn. 5. p. 319.—*Ib.* Supp. p. 264.—*Lewin's* Br. Birds, 6. t. 224.—*Don.* Br. Birds, 3. t. 64.—*Walc.* Syn. 1. t. 84.—*Pult.* Cat. Dorset. p. 17.—*Mont.* Orn. Dict.—Falk, *Martin*, St. Kilda, p. 61.

YOUNG.

Alca pica, *Gmel.* Syst. 1. p. 551. 2.—Black-billed Auk, *Penn.* Arct. Zool. 2. p. 510. 426.—*Lath.* Syn. 6. p. 320.—*Mont.* Orn. Dict. and Supp.*

This species weighs about twenty-seven ounces; length eighteen inches; bill two inches long from the corner of the mouth, much compressed sideways; three quarters of an inch deep at the largest part, much arched, and hooked at the end of the upper mandible; it is furnished with three transverse furrows; the middle one is white, and crosses the whole bill; irides light hazel: the head, chin, throat, and whole upper parts are dusky-black, with a strong tinge of a dusty hue on the sides of the head and throat; the quill-feathers are also dashed with cinereous on the outer webs; the greater coverts and secondaries tipped with white, forming a narrow band across the wing; from the ridge of the upper mandible is a narrow line of white feathers, which continue to the eye on each side; the under parts from the

breast are white; the tail is cuneiform, consisting of twelve pointed feathers, the two middle of which exceed the rest considerably in length; legs dusky-black. *In young birds the chin is freckled with white; the bill nearly smooth, and without the white band; the stripe of white before the eyes being distinct.*

The Razor-Bill is not seen with us in winter, but repairs to our rocky coasts in the spring, and begins to deposit its single egg (which is of a dirty white, blotched and spotted with brown and dusky) in the beginning of May, on the projecting shelves of the highest cliffs, where, in some situations, they may be seen by hundreds in a row, but not, as we have been informed,[1] cemented to the surface; for we have frequently taken them up, and laid them again in the same spot. A violent gale of wind sometimes sweeps away whole ranks. The egg is of a prodigious size in proportion to the bird, being about the size of that of a turkey, of a longer shape. The principal food of this bird is small fish, particularly sprats, with which it feeds its young, taking three or four at a time in its bill, with the tails hanging out. The eggs of this and the foolish guillemot are an article of trade in several of the isles of the coast of Scotland, and are used for refining sugar. They are also eaten by the natives there, as well as in other parts; to procure them they are suspended by a rope, and let down from the top of the cliffs; others climb up and down by the help of a crook fastened to a pole: many perish in this dangerous employment. This bird is not so plentiful as the guillemot; and it is remarkable, that although they breed in the same cliffs, they rarely are found to lay on the same ledges or shelves of the rock, but keep their breeding-places distinct, even where they swarm like bees about a hive.

* Colonel Montagu was of opinion that this and the black-billed auk formed a distinct species. The researches of Temminck and Fleming, both having the best opportunities of observing the habits of this species, prove that he was mistaken: under the article Black-billed Awk I have given his reasons for this opinion, which are very plausible. They are, according to those authors, the young of the first year, which at that time have a strong resemblance to the adult in the winter plumage, but are easily distinguished by the bill being smaller, and less furrowed with white; the summit of the head and nape of the neck of an ash-brown colour, all the inferior parts being pure white. *

RECURVIROSTRA (Linnæus.)—* Avoset, a genus thus charac-

[1] This account was first, I believe, given by Harvey, the celebrated discoverer of the circulation of the blood, and it has, as usual, been copied by Bewick, &c.

terised. Bill very long, slender, weak, depressed in all its length; the joint flexible, curved upwards; upper mandible furrowed on its surface; under mandible furrowed on the sides; nostrils on the surface of the bill, long and linear; legs long and slender; three toes before, hind toe almost wanting, and jointed high upon the shank; the fore toes re-united as far as the second joint by a membrane; wings acuminated, the first quill being the longest.*

RED-BACKED SHRIKE.—A name for the Flusher.

REDBREAST (*Sylvia rubecula*, LATHAM.)

Sylvia rubecula, *Lath.* Ind. Orn. 2. p. 520. sp. 42.—*Flem.* Br. Anim. p. 68.—Motacilla rubecula, *Linn.* Syst. 1. p. 337. 45.—*Gmel.* Syst. 2. p. 993.—*Raii*, Syn. p. 78. A. 3.—*Will.* p. 160. t. 37.—*Briss.* 3. p. 418. t. 21.—Rouge-Gorge, *Buff.* Ois. 5. p. 196. t. 11.—*Ib.* pl. Enl. 361.—Bec-fin Rouge-Gorge, *Temm.* Man. d'Orn. 1. p. 215.—Rothburstiger Sanger, *Meyer*, Tasschenb. Deut. 1. p. 238.—*Frisch*, Vög. t. 19. f. 1.—Redbreast, Br. Zool. No. 147.—Arct. Zool. 2. p. 417. D.—*Lewin's* Br. Birds, 3. t. 107.—*Lath.* Syn. 4. p. 442. 38.—*Mont.* Orn. Dict.—*Walc.* Syn. 2. t. 238.—*Pult.* Cat. Dorset. p. 9.—*Bewick's* Br. Birds, 1. p. t. 204.—*Low's* Fauna Orcad. p. 69.—*Selby*, pl. 46. fig. 2. p. 181.

This well-known species of warbler needs little description. The upper parts are of a yellowish brown, tinged with ash colour; forehead and from chin to breast of a deep rufous orange; belly and vent whitish; the plumage of both sexes are alike; the nestling-feathers of young birds are spotted; and they do not possess the red on the breast for two or three months after they leave the nest.

It is said to be a migrative species, but from no other reason than their more frequent and numerous appearance about our habitations in the winter, when the woods and fields are destitute of insects; it is then they seek the protection of man, and are so tame as to enter doors and windows, and pick up the crumbs fallen from the table; here they too frequently fall a sacrifice to the watchful cat.

* "The Redbreast," says Fleming, in a letter to Colonel Montagu, "is only occasionally observed in Zetland after gales of wind." Whether in spring or autumn, or at what season, is not mentioned; but most probably in the latter, when those which breed in the more northern parts of the European continent may be shifting their quarters, and, by accident, are driven from Norway.* It sings throughout the winter, except in severe weather. About the beginning of April it prepares a nest in some mossy bank or out-building, composed of dead leaves, green moss, and stalks of plants, lined with hair; and lays from five to seven whitish eggs spotted with rust-colour and cinereous; their weight about twenty-six grains.

* The statement given in most books of natural history, that the Redbreast, during summer, flies from the habitation of man, which he has haunted during winter, to nestle in wild and solitary places, is far from being strictly correct. I readily admit that many of these birds

may be found in woods and forests, but I am equally certain that a great number do not go farther from their winter haunts than the nearest hedge-row. Even in the near vicinity of London, in Copenhagen Fields, Chelsea, Battersea Fields, Kennington, Bermondsey, Peckham, Deptford, Greenwich, wherever indeed there is a field and a few trees, I have heard Redbreasts singing during the whole summer. One has been in song all the summer, not a gun-shot from my house, at Lee, where this paragraph was written; and I have remarked another singing for several months among some elms at Lewisham Bridge, though there are houses all around, and the bustle of the public road just below. The Redbreast does not indeed usually come to the cottage for crumbs during summer, because then insects are plentiful; and this may have given rise to the common opinion. I once saw an instance, however, at Compton Basset, in Wiltshire, in which a Redbreast made a daily visit, in summer, *within* a cottage door to peck up what he could find. It is worthy of remark, that Grahame's poetical sketch of the Redbreast is much more true to nature than the statements of our professed naturalists.

> "High is his perch, but humble is his home,
> And well conceal'd, sometimes within the sound
> Of heartsome millclack, where the spacious door
> White dusted, tells him plenty reigns around;
> Close at the root of brier-bush that o'er hangs
> The narrow stream, with shealings bedded white,
> He fixes his abode and lives at will.
> Oft near some single cottage he prefers
> To rear his little home; there, pert and spruce,
> He shares the refuse of the good wife's churn,
> Nor seldom does he neighbour the low roof
> Where tiny elves are taught." [1]

The Redbreast is a very early builder, and usually selects for its nest a shallow cavity among grass or moss in a bank, or at the root of a tree; sometimes in the hole of a tree, in a wood or secluded lane, frequently far distant from its winter haunts about the cottage door or the farm-yard. A singularly fanciful account is given by Turner, an English naturalist, who wrote so long ago as the sixteenth century. "The robinet," says he, "which hath a red breast both in summer and in winter, nestleth as far as possible from towns and cities in the thickest copses and orchards, after this manner. When she hath found many oak leaves, she constructeth a nest, and when built, covereth it in with arch work, leaving only one way for entrance, for which purpose

[1] Birds of Scotland, p. 29.

she buildeth with leaves a long porch before the door-way,—the which, when going out to feed, she covereth up with leaves." But as if somewhat sceptical himself respecting his own description, he subjoins:—"These things which I now write, I observed when a boy, though I do not deny that she may nidificate otherwise, and if any one curious in such matters hath observed her build differently, it will be a gratification to me to learn the same: I have related candidly that which I have seen."[1]

Now I have not a doubt that in this instance Turner was deceived by some dreaming fancy, yet is it afterwards copied by almost every naturalist, from Aldrovand and Willughby down to Buffon and Bewick. After the nest is built, Willughby tells us the bird often strews it with leaves, preserving only a narrow winding entrance under the heap, and even shuts the mouth of it with a leaf when she goes abroad.[2] The only circumstance which could have led to such a mistake, is, that as the Redbreast makes its nest at the root of a tree, a few leaves might have been accidentally drifted over the entrance by the wind; for among some hundreds of these nests which I have seen, I never met with one covered in at the top with any sort of material, piled up for the purpose by the bird, though I have often seen a tuft of grass, a layer of natural-grown moss, or part of the root of a tree projecting over it.

I should have passed over another part of Turner's original account, had it not been used as an illustration of his peculiar views of instinct by the late Dr. Mason Good. "All the different species of birds," says he, "in constructing their nests, not only adhere to a peculiar plan, but wherever they can obtain them, to peculiar kinds of materials: if these materials be not to be procured, the accommodating power of the instinctive principle directs them to others, and suggests the best substitutes. Thus the Redbreast uniformly prefers oak leaves as a lining for her nest, wherever she can acquire them, but if these be not to be had, she supplies the want by moss and hair."[3] So far, however, from preferring oak leaves for a lining, I am bold to say, that these are seldom if ever used even for the foundation of the Redbreast's nest, which is always neatly made of moss and grass, and lined with hair, and sometimes (not always) with feathers intertwined.

Dr. Good's inference seems to have been made from a comparison of

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[1] Avium Histor. Princip. [2] Ornithologia, p. 160, and Bewick, i. 236, ed. 1826.
[3] Good's Book of Nature, ii. 137, 1st edit.

his book knowledge of Turner's oak leaves, with his personal observation of moss and hair.[1*]

It is a constant inhabitant of the greater part of the European continent. About Bornholm, it is called Tomni-Liden; in Norway, Peter Ronsmad; in Germany, Thomas Gierdet; with us, Redbreast and Ruddock.

RED-BREASTED GOOSANDER.—A name for the Merganser.

RED-BREASTED GOOSE (*Anser ruficollis*, PALLAS.)

* Anas ruficollis, *Gmel.* Syst. 2. p. 511.—*Lath.* Ind. Orn. 2. p. 841. 23.—*Temm.* Man. d'Orn. 2. p. 826.—Anas torquata, *Gmel.* Reise, 2. 184.—Red-breasted Goose, Arct. Zool. 2. p. 571. C.—*Lath.* Syn. 6. p. 455. 17.—*Lewin's* Br. Birds, 7. t. 241.—*Mont.* Orn. Dict.—*Flem.* Br. Anim. p. 128.

This species is less than the common goose; weight about three pounds; length twenty-one inches; bill brown; nail black; irides yellow-brown; the fore part of the head and crown black, passing backwards in a narrow stripe to the back; forehead and cheeks sprinkled with white; between the bill and eye an oval white spot, above which is a black line; chin and throat black; behind the eye is white, passing down the neck on each side; the middle of this white is rufous; the rest of the neck deep rufous; on the breast is a band of black, and another of white; belly white; sides striped with black; back and wings black; greater wing coverts tipped with grey; upper and under tail coverts white; legs dusky black.

It may be readily distinguished from its kindred by its bill being brown, with a black nail, which is also the colour of the feet. The crown, throat, belly, and tail are black; the vent, rump, and tail feathers white; the front of the neck and breast red. It has been found two or three times in Britain; one near London, in 1766, another in Yorkshire, and a third at Berwick-on-Tweed, in May, 1818.

This beautiful species is said to breed in the northern parts of Russia, whence they migrate southward in the autumn, and return in the spring. They frequent the Caspian Sea, and are said to winter in Persia. The nest is built upon the banks of the frozen ocean, and the mouth of the rivers Ob and Lena, in the northern parts of Asia.

RED DUCK.—A name for the Golden-Eye.

RED GAME, or RED GROUS.—Names for the Moor Fowl.

RED GODWIT.—A name for the Godwit, and the Yaredhip.

RED-HEADED LINNET.—A name for the Linnet and the Redpole.

RED-HEADED WIGEON.—A name for the Pochard.

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[1] Architecture of Birds. Chap. on Ground-Builders, p. 82.

RED HOOP.—A name for the Bullfinch.

RED LARK (*Alauda rubra*, Linnæus.)

Alauda rubra, *Gmel.* Syst. 2. p. 794.—*Lath.* Ind. Orn. 2. p. 494. 10.—*Flem.* Br. Anim. p. 79.—Alauda Pensylvanica, *Briss.* Supp. p. 94.—*Ib.* 8vo. 1. p. 419. 13.—Alouette à joues brunes de Pensylvanie, *Buff.* Ois. 5. p. 58.—Lark from Pensylvania, *Edw.* t. 297.—Red Lark, Br. Zool. No. 140.—Arct. Zool. 2. No. 279.—*Lath.* Syn. 4. p. 376. 8.—*Lewin's* Br. Birds, 3. t. 93,—*Turton*, Linn. 1. p. 482.

This species is rather superior in size to the sky lark, *measuring full seven inches and a half in length.* The bill is dusky above, whitish beneath, except at the point; irides hazel; the upper part of the head, hind part of the neck, and back, rufous-brown, each feather a little dusky in the middle; over the eye a pale ferruginous streak; chin and throat the same; the ear coverts inclining to dusky; from the bill under the eye a narrow dusky line; the sides of the neck and breast ferruginous, with dusky spots; belly and under tail coverts ferruginous white; greater quill-feathers dusky, slightly edged with yellowish white; the rest of the quills deeply margined with rufous; some of the larger coverts the same, but those immediately impending the secondary quills have whitish tips, making a small bar across the wing; one row also of the smaller coverts are tipped with white, making another line of that colour across the superior part of the wing; the two middle feathers of the tail are dusky, deeply margined with rufous-brown; the outer feather is white, the next is white on the exterior web; the shaft dusky; legs yellowish brown; hind claws as long as the toe, and somewhat curved. The size of the bill, legs, and hind claw, bespeak the species.

It should appear, that this rare British bird is subject to that sort of variety in plumage from season, which has been mentioned with respect to the meadow pipit. A specimen with which we have been favoured by Mr. Foljambe for examination, has none of that rufous-colour, from whence the name was derived, but is of a pale brown above, lightest on the margins of the wing-coverts and tertials; the under parts are also rather paler than usual, but the breast and sides of the body are pale rufous; the cheeks, sides of the neck, and upper breast, spotted in the usual manner; the tail is marked with white on the lateral feathers as usual; the tail is of great length in proportion to the wings, which when closed do not reach within two inches of the end. Of the habits of this species little is known. Temminck and Bechstein are silent on the subject.

RED LEGS.—A name for the Red Shank.

RED-LEGGED CROW.—A name for the Chough.

RED-LEGGED GULL.—The young of the Laughing Gull.

RED-NECKED SANDPIPER.—The young of the Dunlin.

RED-NECKED GREBE (*Podiceps rubricollis*, LATHAM.)

Colymbus rubricollis, *Gmel.* Syst. 2. p. 529.—Colymbus subcristatus, *Ib.* 2. p. 590. Podiceps rubricollis, *Lath.* Ind. Orn. 2. p. 783. 6.—*Flem.* Br. Anim. p. 131.—Le Grebe à joues grises, Jougrise, *Buff.* Ois. 8. p. 241.—*Temm.* Man. d'Orn. 2. p. 720.—*Bechst.* Naturg. Deut. 4. p. 546.—Red-necked Grebe, Arct. Zool. 2. p. 499. C.—*Ib.* Supp. p. 69.—*Lath.* Syn. 5. p. 288. 7.—*Ib.* Supp. p. 260. t. 118.—*Lewin's* Br. Birds, 5. t. 199.—*Walc.* Syn. 1. t. 103.—*Don.* Br. Birds, 1. t. 6.—*Bewick's* Br. Birds, 2. p. 152.—*Mont.* Orn. Dict. and Supp.

YOUNG.

Colymbus Parotis, *Sparm.* Mus. Cast. Das. 1. t. 9.—*Gmel.* Syst. 1. p. 592.—Colimbo Giovana del L'Antiditta Specie. Stor. degl. Ucc. 5. pl. 523.

Length eighteen inches; bill nearly two inches long; sides of the base of both mandibles, for three quarters of an inch, of a fine orange yellow, the rest black; lore brown or blackish; irides fine orange red; the crown, and sides of the head above the eyes, nearly black, and the feathers a little elongated; the hind part of the neck, the back, and wings, dark brown; six of the middle secondaries white, a little mottled with dusky at the tips; the two or three next outward ones more or less white near the tips and inner webs; the chin, sides under the eyes, and fore part of the neck for above an inch, pale ash colour; the rest of the neck ferruginous-chestnut, mottled with dusky; from thence to the vent white, like satin, mottled on the sides with dusky irregular spots; legs black.

The description of this rare species we have borrowed from Dr. Latham, who says two of these birds were taken alive in East Kent, in April, 1786. He also mentions two other specimens, one killed at Teignmouth, in January, the other at Sandwich, in October. This bird is supposed to inhabit Denmark or Norway.

Early in the year 1809, five of these birds were seen together on Slapton Ley, four of them were killed, two of which were eaten, or attempted to be devoured by the natives; but finding them extremely rank, they threw away the third; and the fourth fortunately came to our hands, through the means of an ornithological friend, the Rev. Mr. Holdsworth, who assures us he had frequently observed these birds on wing, and from their singular manner of flight, considered them as birds he had never before seen; but it was some time before he could procure a specimen.

The bird in question, although a male, had not the least appearance of the rufous neck, and was of course either a young bird, or in its winter plumage; and in that season may be destitute of such mark. Some authors have considered this species as belonging to the crested grebe, but they cannot possibly have compared them.

The above specimen, shot on the third of February, weighed twenty-three ounces; the length seventeen inches; the bill an inch and a half long to the feathers on the forehead, of a dusky colour, with the base and under part of the lower mandible, and a streak from the nostrils to the corner of the mouth of the upper mandible, bright yellow; irides hazel; lore dusky; the top of the head, back of the neck, and back, dusky, the feathers on the last slightly margined with cinereous; the chin, throat, and cheeks white, the last dingy white, extending on each side towards the back of the head; the under part of the neck brown, with a slight tinge of rufous; but the lower part of the neck, upper breast, and the sides of the body, white, obscurely spotted with dusky; the rest of the body beneath is white; the scapulars, rump, prime quills, and coverts of the wings, all black, except a patch of pure white on the shoulder, or junction of the wing with the body, and ridge of the wing; thirteen of the secondary quills are white, the two first, and two last, with more or less black on their outer webs, the others pure white; the tertials are black; legs and feet pale greenish yellow, the former, as well as the webs, dusky on the outside.

Upon dissection, the stomach was found to be distended with feathers and small seeds. Being struck with so singular an appearance, it was carefully washed and dried, and the contents of the stomach was, by that means, discovered to be feathers collected from its own body. For what purpose could such a quantity have been swallowed? Few of the piscivorous birds disgorge the refuse like the falcon tribe, and such a quantity can scarcely be supposed to have been taken into the stomach, in the act of cleaning and dressing its plumage, unless they had been long collecting, and were impassable; many indeed were completely comminuted, and fit to pass into the intestines. This singularity has been observed also in the crested grebe.

There was nothing remarkable in the *trachea*, except that the *bronchi*, or divarications, were hard and bony, particularly on the inside, where there was scarcely any membranous divisions, and consequently little or no flexibility.

This is smaller, much shorter, and a more truss-shaped bird, in size between the dusky and the crested species; the neck is much shorter, and the bill is materially different.

RED PARTRIDGE.—A name for the Guernsey Partridge.

RED PHALAROPE.—A name for the Coot Foot.

REDPOLE (*Rubra Linaria*, Ray.)

* Fringilla Linaria, *Linn.* Syst. 1. p. 322. 29.—Fauna Suec. No. 241.—*Gmel.* Syst. 1. p. 917. sp. 29.—*Lath.* Ind. Orn. 1. p. 458. sp. 83.—Linaria rubra minor, *Raii*, Syn. p. 91. A. 9.—*Will.* p. 176. t. 43.—*Briss.* 3. p. 138. 31.—Fringilla

flavirostris, *Linn.* Syst. 1. p. 322. 27.—*Gmel.* Syst. 1. p. 915. sp. 27.—*Lath.* Ind. Orn. 438. sp. 16. syn. of young.—Le Cabaret, *Buff.* Ois. 4. p. 76.—*Ib.* pl. Enl. 485. f. 2. male.—Gros Bec Sizerin, *Temm.* Man. d'Orn. 1. p. 373.—Petite Linotte des Vignes, *Briss.* 3. p. 138. old male.—Bergreisig, *Bechst.* Naturg. Deut. 3. p. 879.—*Meyer*, Tasschenb. Deut. 1. p. 171.—*Frisch*, Vög. t. 10. f. 2. —*Bechst.* Man. des Oiseaux de voliere, p. 361.—Lesser Red-headed Linnet, or Redpole, Br. Zool. No. 132. t. 54.—Arct. Zool. 2. No. 305. 75.—*Will.* (Angl.) p. 260. t. 46.—*Lath.* Syn. 3. p. 305.—*Ib.* Supp. p. 167.—*Lewin's* Br. Birds, 2. t. 85.—*Mont.* Orn. Dict. p. 62.—*Walc.* Syn. 2. t. 223.—*Pult.* Cat. Dorset. p. 12.—*Bewick's* Br. Birds, p. t. 174.—*Shaw's* Zool. 9. p. 519. t. 70. copy from Bewick.—*Low's* Faun. Orcad. p. 64.—Rose Linnet !!! *Flem.* Br. Anim. p. 85. —Arctic Finch, Arct. Zool. 2. p. 379. A.—*Lath.* Syn. 3. p. 260. 12.—*Selby*, pl. 54. fig. 10. p. 279.*

This bird is less than the common linnet and twite, and although like them, subject to a partial change of colour at a particular season, may be readily distinguished from them, as well by other peculiar characteristics as by its inferiority of size, weighing about two drams and a half; length five inches; the bill is of a light colour, inclining to dull yellow; irides hazel; the forehead is of a purplish red; the feathers of all the other parts above are dusky, margined with rufous-brown; chin black; throat and breast pink; sides streaked with dusky; belly white; quills and tail dusky, edged with pale brown; in some the rump is tinged with pink; legs dusky.

The female differs in being somewhat lighter above, and in the colour on the head, which is not so bright, sometimes yellowish. This sex has the black spot on the chin, but none of the pink on the breast and throat. In confinement they lose the pink colour on the breast at the first moulting; at the second the colour on the head changes to a greenish yellow. Bechstein had a male, the head of which turned to a fine golden colour after the third moulting. The young birds are destitute of the pink feathers; and indeed the males are subject to as much variety as the linnet, and sometimes have no red at all on the breast.

This bird is not uncommon in the southern counties of England during the winter months; at this season it is gregarious, and numbers are frequently taken about London and other parts by bird-catchers; it is there called Stone Redpole. It is said to reside during the whole year, and to breed in the northern parts of the kingdom, retiring during the summer to the underwood that covers the bases of our mountains, and fringes the banks of our foaming streams. A nest and eggs received from our friend Dr. Latham, came from Yorkshire: it was made of bents, and a little moss put together with the down of the willow, and warmly lined with the same down. The egg is, as well as the nest, smaller than that of the linnet, of a light bluish green, thickly sprinkled with reddish spots, most so at the larger end. Mr. Pennant says he found

the nest of this bird on an alder-stump near a brook, which differed from the one described above in being lined with hair: it had four eggs like those before mentioned. That author adds, "The bird was so tenacious of her nest, as to suffer us to take her off with our hand; and we found, after we had released her, she would not forsake it." But he is silent with respect to the part of this country in which he found the nest. As yet we have never seen this species south in the incubating season: in the autumn it is frequently seen about alder-trees picking the seeds out of the cones.

This species is very generally diffused throughout Europe; but its native regions seem to be the northern parts. They reach Germany in great flocks towards the end of October, and again retire in the months of March and April. *"It is a bird," says Bechstein, "more pleasing to the eye than to the ear; its warble being feeble and weak, and consisting of a continued chinking note. It is impossible to see without pleasure the affection which seems to exist between the male and female of this species, who fondle and caress each other without ceasing. They will do the same even with the goldfinch, linnet, and canary, with any of which it will readily pair."*

RED SANDPIPER.—A name for the Knot.

REDSHANK (*Totanus calidris*, BECHSTEIN.)

Scolopax calidris, *Linn.* Syst. 1. p. 245. 11.—*Gmel.* Syst. 2. p. 664.—*Lath.* Ind. Orn. 2. p. 722. 25.—Scolopax Totanus, *Briss.* 5. p. 188. 3. t. 17. f. 1.—*Ib.* 8vo. 2. p. 261.—*Raii*, Syn. p. 107. A. 1.—*Will.* p. 221.—Totanus calidris, *Temm.* Man. d'Orn. 2. 643.—*Flem.* Br. Anim. p. 102.—Chevalier aux pieds rouges, *Buff.* Ois. 7. p. 513. t. 28.—Gambet Sandpiper, *Lath.* Syn. 5. p. 167.—Redshank, or Pool Snipe, Br. Zool. 2. No. 184. t. 65.—*Ib.* fol. 124.—Arct. Zool. 2. No. 377.—*Will.* (Angl.) p. 299.—*Albin*, 3. t. 87.—*Lath.* Syn. 5. p. 150. 20.—*Ib.* Supp. p. 245.—*Lewin's* Br. Birds, 4. t. 165.—*Walc.* Syn. 2. t. 143.—*Pult.* Cat. Dorset. p. 14.—*Don.* Br. Birds, 5. t. 112.

YOUNG.

Tringa striata, *Gmel.* Syst. 1. p. 672.—Striated Sandpiper, *Lath.* Syn. 5. p. 176.—Totanus striatus, *Briss.* Orn. 5. p. 196.—Le Chevalier Rayé, *Buff.* Ois. 7. p. 516.—*Ib.* pl. Enl. 827.—Gambitta Stor. degli Ucc. 5. 464.

This species weighs about five ounces; length twelve inches; *Temminck says it rarely exceeds ten inches and a half.* The bill is near two inches long, red at the base, dusky at the point; irides hazel; the head and hind part of the neck cinereous brown, with obscure dusky streaks; back and scapulars dusky, spotted with grey; quills dusky; the secondaries tipped with white; wing coverts ash-colour, mixed with brown, and marked with spots of white; the lower part of the back and rump white, marked with small dusky specks; over the eye is a whitish streak; chin and fore part of the neck streaked with dusky; lower breast and belly white; the tail and its coverts are

transversely barred with black, small and numerous; legs long, of an orange-colour. In some, the rump is of a pure white. *In this state they appear on the coast of Holland in the month of March.*

It is not an uncommon bird upon many of our shores in winter; many breed in our marshes, on the verge of large pools, and in extensive swampy places. It lays four eggs of an olivaceous-brown, spotted and blotched with black, most numerous at the larger end; in shape and appearance much like that of the lapwing, but rather smaller.

We have seen these birds on Romney Marsh, in the breeding season; and when disturbed from their nest, they fly round like the lapwing.

*The young of this species are distinguished by having the plumage above brown, with yellow margins; breast cinereous, with narrow brown streaks; the tips of the tail feathers reddish; base of the bill yellow. Little difference seems to exist between this and the red-legged sandpiper, (*T. Bewickii*, MONTAGU,) which is doubtless a variety of this species.*

REDSTART (*Sylvia phœnicurus*, LATHAM.)

*Sylvia phœnicurus, *Lath.* Ind. Orn. 2. p. 511. sp. 15.—*Flem.* Br. Anim. p. 68.—Motacilla phœnicurus, 1. p. 335. 34.—*Gmel.* Syst. 2. p. 987. sp. 34.—Rutacilla, *Raii*, Syn. p. 78. A. 5.—*Will.* p. 159.—*Briss.* 3. p. 403. 15.—Le Rossignol de murailles, *Buff.* Ois. 5. p. 170. t. 6. f. 2.—*Ib.* pl. Enl. 351. f. 1. and 2.—*Bechst.* Man. des Ois. Fr. p. 624.—Bec-fin de murailles, *Temm.* Man. d'Orn. 1. p. 220.—Schwarzkeliger Sanger, *Meyer*, Tasschenb. Deut. 1. p. 244.—*Bechst.* Naturg. Deut. 3. p. 607.—*Frisch*, t. 19. f. 1. male. t. 20. f. 1. A. and fig. 2. A. female. fig. 2. B. young male.—Geckraagde Roodstaart, *Sepp.* Nedrel. Vög. 4. p. 361.—Redstart, Br. Zool. 1. No. 146.—Arct. Zool. 2. p. 416. B.—*Will.* (Angl.) p. 218.—*Lath.* Syn. 4. p. 421. 11.—*Lewin's* Br. Birds, 3. t. 108.—*Albin*, 1. t. 50.—*Pult.* Cat. Dorset. p. 8.—*Mont.* Orn. Dict.—*Ib.* Supp.—*Don.* Br. Birds. 4. t. 82.—*Bewick's* Br. Birds, 1. f. 208.—*Syme*, p. 135.—*Sweet's* Br. Warblers, p. 2.—*Selby*, pl. 46. fig. 3. p. 184.

Provincial.—Redtail. Brantail. Firetail.*

This species of warbler weighs about three drams and three quarters; length five inches and a half; bill black; irides hazel; forehead white; the crown of the head, hind part of the neck, and back, deep bluish grey; cheeks and throat black; breast, sides, and rump, rusty red; tail red, except the two middle feathers, which, as well as the wings, are brown; legs black.

The Redstart comes to us early in April, and leaves us the latter end of September. It is not uncommon in many parts of England; makes its nest in a hole of a wall or of a tree, which is composed of moss, and lined with hair and feathers; lays five or six eggs of a fine blue colour, rather less than those of the hedge chanter, and of a lighter shade. The young are at first speckled all over, not very unlike the young of the redbreast.

The female is of a light brown, with a dash of grey on the head and

back; the chin whitish; breast and sides inclining to rufous; rump and tail like the male, but less bright. It is remarkable that many of the warblers who migrate from the south to breed in our climate confine themselves to intermediate situations, like the nightingale, which has never been found farther north than Yorkshire, nor further west than Somersetshire; so the Redstart is rarely found in Cornwall, and perhaps not frequently west of Exeter, in Devonshire.

* "We have frequently," says Syme, "met with it in the neighbourhood of Edinburgh. Though a very shy bird, it often approaches and builds near the habitations of man, and constructs its nest in places that we would scarcely expect so timid a bird would select for that purpose. At Craigcrook Castle, near Edinburgh, we found its nest in a hole of a wall close by an old gate way, through which people daily pass to the castle; it was placed within reach of the hand from the ground. These birds often haunt orchards, gardens, and shrubberies; but they also frequent solitary situations among rocks, crags, and woods, where they build in the crevices of dangerous ravines and precipices. Though wild and timorous birds, they are often found in cities, but always selecting the most difficult and most inaccessible places for the important work of incubation. If the eggs are touched by the hand, unless the hen has sat some time, she will forsake the nest and build again." *

Its song is soft and short, and, when perched, it frequently vibrates its tail in a quick and singular manner. *Bechstein says, its song is lively and agreeable, and that in addition to its natural note, it sometimes improves it by adding those of other birds, among which it is found. "One which had built its nest under my house," he adds, "imitated very exactly the note of a chaffinch I had in a cage in the window, and my neighbour had another in his garden which repeated all the notes and cadences of the fauvette. This facility in appropriating the song of other birds is rare in a wild state, and appears to be almost confined to this species, which is very common throughout Europe and Asia. It leaves Germany in the early part of October, and again returns in March or April. During the spring and autumn they haunt the hedges and skirts of the forests, but in the summer they frequent the gardens, where they recompense their host, if he happen to be a lover of nature, by their morning and evening song."

"In confinement, it soon," says Sweet, becomes "very tame and familiar, and will be much attached to the person that feeds it; if brought up from the nest, it may be learned to sing any tune that is whistled or sung to it. One that I was in possession of some years back, learnt the Copenhagen waltz, that it had frequently heard sung,

only it would sometimes stop in the middle, and say *chippu*, a name by which it was generally called, and which it would repeat every time I entered the room where it was, either by night or day. In winter it would generally begin singing in the evening, as soon as the candle was lighted, and would sing as late as eleven o'clock at night. In spring, when it first arrives in this country, it mounts to the top of the loftiest trees, where it will sit and sing for hours, beginning in the morning by day-break. The earliest of their arrival that I ever noticed was the 25th of March; some years they come the beginning of April, and sometimes not till the middle of that month. It seems to be a very peevish and fretful bird, often shaking its tail, and repeating a quick shrill note, as if it was in fear."

Bechstein says, it chooses a hole in a wall or a tree whereon to build its nest, which is formed of stalks of dog-grass, feathers, and horse-hair, carefully put together.*

REDWING (*Turdus Iliacus*, Linnæus.)

Turdus Iliacus, *Linn.* Syst. 1. p. 292, 3.—*Gmel.* Syst. 1. p. 808. sp. 3.—*Lath.* Ind. Orn 1. p. 329. 7.—*Raii*, Syn. p. 64. A. 4.—*Will.* p. 139.—Le Mauvis, *Buff.* Ois. 3. p. 309.—*Ib.* pl. Enl. 51.—Merle Mauvis, *Temm.* Man. d'Orn. 1. p. 165.—Roth Drossel, *Bechst.* Naturg. Deut. 3. p. 360.—*Meyer*, Tasschenb. Deut. 1. p. 196.—*Frisch*, t. 28. f. 1. and 2.—Redwing, Swinepipe, or Wind Thrush, Br. Zool. No. 108.—Arct. Zool. 2. p. 342. D.—*Lewin's* Br. Birds, 2. t. 199.—*Mont.* Orn. Dict.—*Lath.* Syn. 3. p. 22. 7.—*Pult.* Cat. Dorset. p. 10. —*Walc.* Syn. 2. t. 199.—*Bewick's* Br. Birds, 1. p. 102.—*Low's* Faun. Orcad. p. 57.—Red-wing Thrush, *Shaw's* Zool. 10. p. 183.—*Flem.* Br. Anim. p. 65.

This species of thrush is in weight near two ounces and a half; length eight inches and a half; irides dusky; bill dusky, yellowish at the base of the upper mandible; the whole upper parts are brown, lighter on the edges of the quill-feathers and coverts; over the eye is a whitish streak; breast and sides marked with dusky lines; body under the wings, and under wing coverts, reddish-orange; the middle of the belly white; legs pale brown.

This bird much resembles the throstle, or common thrush, but is rather less; and in that bird the spots on the breast are more distinct, the colour under the wings not so deep, and it wants the white over the eye. The Redwing is a migrative species, coming to us in great flocks about the latter end of September, frequently in company with field-fares. It is found in greatest abundance where the hawthorn abounds, on the berries of which it feeds. When the weather is severe, or their food becomes scarce, their flight is continued south.

*"In the year 1822, during the first severe frost, which lasted three weeks," says Selby, "large flocks of fieldfares and Redwings were collected about the hedges, and on the outskirts of the woods, where they lived upon berries of the hawthorn, which fortunately for

them, were in great abundance. This supply, however, rapidly decreased, but a few days of thaw occurring, they were enabled to pursue their migration southward."*

In the hard winter of 1799, vast numbers of them resorted to the west of England, where a sudden fall of snow, unusually deep in that part, cut them off from all supply of food; and being too weak to attempt a passage over sea to a warmer climate, thousands of these, and their companions, the fieldfares, were starved to death.

It is said to breed in Norway and Sweden, and in that season to sing not inferior to our throstle; it makes a nest in some low bush in the maple forests of the latter country, and lays six bluish-green eggs, spotted with black. Mr. Bullock found one of them at Harris, in the Hebrides.

One in our collection, is of a cream-coloured brown, with all the markings of a pale colour; bill and legs almost white.

RED-THROATED DIVER.—A name for the Cobble.

REED BUNTING.—A name for the Reed Sparrow.

REED FAUVETTE.—A name for the Sedge Bird.

REED SPARROW (*Emberiza Schœniclus*, Linnæus.)

*Emberiza Schœniclus, *Linn.* Syst. 1. p. 311. 17.—*Gmel.* Syst. 1. p. 881. sp. 17.—*Lath.* Ind. Orn. 5. p. 402. sp. 13.—Emberiza arundinacea, *Gmel.* Syst. 1. p. 881.—*Lath.* Ind. Orn. p. 403. var. 10.—Passer Torquatis, et arundinaceus, *Raii*, Syn. p. 93. A. 3.—*Will.* p. 196.—*Briss.* 3. p. 274. 5.—Ortolan de Rosseaux, *Buff.* Ois. 4. p. 315.—*Ib.* pl. Enl. 247. f. 2. male, and pl. 477. f. 2. female.—Le Colqueluche, *Buff.* Ois. 4. p. 320. male.—Bruant de Roseau, *Temm.* Man. d'Orn. 1. p. 307.—Der Rhorhammer, *Bechst.* Naturg. Deut. 3. p. 269.—*Meyer*, Tasschenb. Deut. 1. p. 181.—*Frisch*, t. 7. f. 1. A. B.—Reed Bunting, Br. Zool. No. 120.—Arct. Zool. 2. p. 368. E.—*Albin*, 2. t. 51.—*Lath.* Syn. 8. p. 173.—*Ib.* Supp. p. 157.—*Lewin's* Br. Birds, 2. t. 75.—*Hayes'* Br. Birds, t. 35.—*Mont.* Orn. Dict. v. 2.—*Bewick's* Br. Birds, p. and t. 145.—*Shaw's* Zool. v. 9. p. 362. t. 59.—*Walc.* t. 14.—*Selby*, Illust. pl. 52. fig. 5. 6. 8vo. p. 242.

YOUNG MALE, OR OLD FEMALE.

Emberiza passerina, *Lath.* Ind. Orn. 3. p. 403. sp. 14.—*Gmel.* Syst. 1. p. 871.—Passerine Bunting, *Lath.* Syn. 3. p. 196. 35.—Mountain Sparrow, *Albin*, v. 3. t. 66.—Sperlings-ammer, *Bechst.* Naturg. Deut. 3. p. 277.—*Ib.* Tasschenb. Deut. p. 141. sp. 9.

Provincial.—Water Sparrow. Black-headed Bunting. Chink. Black Bonnet.*

This is a common bird upon marshes, the edges of rivers, and other places favourable for reeds and aquatic herbage. The bill is dusky; irides hazel; the head, chin, and throat, black; at the corner of the mouth commences a white ring, which grows broader behind the ears, and encircles the head; the breast and belly white; the sides grey, marked with a few dark brown strokes; the back is black, deeply bordered with reddish-brown, interspersed with grey, which grows more conspicuous towards the rump; quill feathers and coverts of the pri-

mores dusky, edged with tawny red; the tail is black; the two middle feathers deeply bordered with rufous, the two exterior on each side marked obliquely with white towards the end; the shafts and tips black.

The female is rather less; the head is rufous-brown, streaked with dusky; from each side of the under mandible a dusky line passes under the neck, where it joins and forms a bed of that colour; behind the eye a light coloured stroke; the breast is streaked with reddish-brown; the rump plain olive-brown; it has no white ring round the head, as in the male.

The young male birds do not assume their full black head till the ensuing spring; nor is the white ring so conspicuous.

It is somewhat extraordinary that the manners and habits of so common a bird should remain so long in obscurity; even modern authors tell us it is a song bird, that it sings after sunset; and describe its nest to be suspended over the water, fastened between three or four reeds. There can be no doubt, however, that the nest, as well as the song of the sedge bird, have been taken and confounded for those of the Reed Sparrow; for as they both frequent the same places in the breeding season, that elegant little warbler is pouring forth its varied notes concealed in the thickest part of a bush, while this is conspicuously perched above, whose tune is not deserving the name of song, consisting only of two notes, the first repeated three or four times, the last single and more sharp. This inharmonious tune it continues to deliver with small intervals from the same spray, for a great while together, when the female is sitting.

This account of the song agrees precisely with my own observation of thousands of these birds, which I have heard sing in their native haunts; but Syme says he knows its song to be very superior to that of any other British species of bunting, exclusive of the snow flake, which he never heard. Bolton also says, the cock sings pleasantly, his notes being much finer and more pleasing than those of any other bird of the same family.

The nest is most commonly placed on the ground near water; sometimes it builds in a bush some distance from the ground; at other times in high grass, reeds, sedge, or the like, and even in furze at a considerable distance from any water; in all these situations we have met with it, but never fastened or suspended, as authors have related. *These have evidently mistaken for this, the nest of the sedge bird (*Curruca salicaria*, Fleming.) Syme says, it is generally placed amongst clumps or bunches of long grass, willow roots, or tufts of reeds or rushes. But though I have met with a very considerable

number of these nests, I never found one in such localities, the usual place chosen being the brow of a ditch bank or a pent drain. Latham says he has seen the bird about hedges, but more frequently near water, which agrees with my own observations.* The nest is composed of stalks of grass, or other dry vegetable substances; sometimes partly moss, and lined with fine grass; frequently finished with long hair. The eggs, which are four or five in number, weigh about thirty-six grains, and are of a dirty bluish white, or purplish brown, with numerous dark coloured spots and veins, much resembling those of the chaffinch. We shall here remark that the eggs of very distinct species of birds are sometimes very similar, and not easily ascertained; they are also subject to considerable variation: the nest affords a much greater distinction, the materials of which they are composed seldom varying. It feeds on insects and grass seeds, of reeds, and other aquatic plants.

REED WARBLER (*Curruca arundinacea*, Brisson.)

*Sylvia arundinacea, *Lath.* Ind. Orn. 2. p. 510. sp. 12.—Motacilla arundinacea, *Gmel.* Syst. 1. p. 992. sp. 167.—Curruca arundinacea, *Briss.* Orn. 5. p. 378. 5. *Flem.* Br. Anim. p. 69.—Passer arundinaceus minor, *Raii*, Syn. p. 47.—*Will.* p. 97.—Fauvette de Roseaux, *Buff.* Ois. 5 p. 142.—Bec-fin de Roseaux, ou Efarvotte, *Temm.* Man. d'Orn. 1. p. 191.—Rhorsanger, *Meyer*, Tasschenb. 1. p. 235.—*Ib.* Vög. Deut. p. 2. Heft. p. 23.—Het Karrakietje, *Sepp.* Nederl. Vög. 2. t. p. 101.—Lesser Reed Sparrow, *Will.* (Angl.) p. 144.—Reed Wren, *Lath.* Syn. Supp. sp. 184.—*Mont.* Orn. Dict.—*Lewin's* Br. Birds, 3. t. 114.—*Sweet's* Br. Warblers, p. 14.—*Selby*, pl. 45**. fig. 3. p. 171.*

The length of this species is scarce five inches and a half; weight nearly three drams; the bill is about half an inch in length, dusky above, yellowish beneath, and broad at the base; at the corner of the mouth are three strong bristles; irides hazel.

The plumage of the whole upper parts of the bird are of a plain olive-brown; the under parts yellowish white, lightest on the throat and down the middle of the belly; the sides a little inclining to rufous-brown; from the bill to the eye is an obscure lightish streak; eyelids lighter, but no stroke over the eye; the tail is cuneiform; the feathers, like those of the quills, dusky brown, edged with the same colour as the back; legs dusky brown.

This bird has been in general confounded with the sedge bird; its form, size, manners, and habits are alike, and both are migrative species, so that it is difficult to discover which of these birds most authors mean by their descriptions. The Reed Warbler, however, may at once be distinguished from the other, by the base of the bill being broader, in having no light stroke over the eye, which in the other is broad and conspicuous; and in the whole upper parts being of one plain colour.

Its nest and eggs are also different. The nest is composed of long grass and the seed branches of reeds, and lined with the finer parts of the latter; it is very deep, and conceals the bird when sitting. This is generally fastened by long grass to several reeds which are drawn together for that purpose, and generally placed over the water. The eggs are four or five in number, rather larger than those of the sedge bird, of a greenish white, blotched all over with dusky brown.

This species is much more local than the sedge bird, but they are sometimes found together. Their notes are similar, and we have found both species all along the coasts of Kent and Sussex, from Sandwich to Arundel, amongst the reedy pools and ditches, especially on Romney Marsh; but in Wiltshire and Somersetshire, where the sedge warbler is found in abundance throughout the banks of the Avon, not a single Reed Warbler is to be found.

The nest of this bird being deep, gives security to the eggs, which would otherwise be thrown out by the wind. We have seen the bird sitting on her nest when the wind blew hard, and at every gust forced it almost to the surface of the water.

*I have now a nest of this species before me, which was built in a field among the branches of lucerne (*Medicago sativa.*) It is very deep, nearly three inches by the same in diameter, and almost wholly composed of hay; the brim being of thicker stems of dry grass. A very few hairs are wound around the interior, which is very smoothly finished; and in some parts of the structure a few small tufts of willow down, and (what seems a singular material) elm blossoms, are interwoven. It is so different, indeed, from the nests described by Lightfoot, and figured by Bolton,[1] that I should have entertained doubts respecting it, had I not known the bird, of which I had a few days before seen a living specimen in Mr. Sweet's aviary at Chelsea. Mr. Lightfoot's nest was bound round with packthread, and Mr. Bolton's with stout, double-twined woollen yarn, such as the poor people use for making stockings; but though he had seen several of these nests, this was the only one where a twined bandage was used. Mr. Sweet found one of these nests in the low side branches of a poplar-tree at Fulham.

"It is a pretty little lively species," says Sweet, "generally frequenting the sides of rivers and ditches, where its warbling song may be heard amongst reeds, sedges, or other thickets that are near the water." Towards autumn it sometimes frequents gardens for the sake of in-

[1] Harmonia Ruralis, ii. p. 72.

sects, and is particularly fond of the common house-fly (*Musca domestica*, Linn.); and I have frequently seen them by the side of large dung-heaps, where those flies breed.* It makes its appearance with us in the latter end of April, or beginning of May. *Sweet says, in the beginning of March or April, and departs in September. It is said to be found in the fens of Lincolnshire, and the banks of the river Coln, in Buckinghamshire.*

REED WREN.—A name for the Reed Warbler.

REEVE.—A name for the female of the Ruff.

RICHEL BIRD (*Sterna minuta*, Linnæus.)

Sterna minuta, *Linn.* Syst. 1. p. 228. 4.—*Wilson's* Am. Orn. 7. p. 80.—*Flem.* Br. Anim. p. 144.—*Gmel.* Syst. 2. p. 608.—*Lath.* Ind. Orn. 2. p. 809. 19.—*Temm.* Man. d'Orn. 2. p. 752.—Sterna minor, *Briss.* 6. p. 206. 2. t. 19. f. 2.—*Ib.* 8vo. 2. p. 416.—Sterna metopoleucos, *Gmel.* Syst. p. 608. sp. 23.—Larus piscator, *Raii*, Syn. p. 131. A. 2.—*Will.* p. 269. 11.—La petite Hirondelle de mer, *Buff.* Ois. 8. p. 337.—Lesser Sea-Swallow, *Albin*, 2. t. 90.—*Will.* (Angl.) p. 353. t. 68.—Lesser Tern, Br. Zool. 2. No. 255. t. 90.—*Ib.* fol. 144. t. L. 2.—Arct. Zool. 2. No. 449.—*Lath.* Syn. 6. p. 364. 18.—*Lewin's* Br. Birds, 6. t. 205.—*Walc.* Syn. 1. t. 121.—*Don.* Br. Birds, 4. t. 96.—*Pult.* Cat. Dorset. p. 18.—*Bewick's* Br. Birds, 2. t. p. 201.—*Mont.* Orn. Dict. and Supp.

This is the smallest of the tribe, measuring about eight inches and a half in length; weight about two ounces. Bill yellow, tipped with black; irides dusky; the forehead is white; the rest of the head above and the nape black; from the bill to the eye a black streak; the sides of the head beneath the eyes, the neck, and all the under parts, pure white; the back, scapulars, and wings, pale grey, darkest on the quills; tail white; legs yellow. Great difference exists in this species between the nestling and adult plumage, which will shew the necessity of great caution in ascertaining the several species of this genus.

The young are seldom capable of flying till the first or second week in July; at which time the plumage of the upper part is more or less of a pale yellow-brown, intermixed with cinereous; and on the back and scapulars each feather has an angular bar near the end; on the back of the head the feathers are black tipped with grey; the quill-feathers are of an elegant cinereous grey, white at the edges, and slightly tipped with yellowish-brown; the tail is nearly even at the end, almost white, with a dash of cinereous; in the middle of each feather a dusky spot on each web, and the tips yellowish; the whole under parts white, the bill dusky, tinged with yellow; legs dull yellow.

This elegant little bird has all the habits of the common tern, and breeds in the same place, but is not found in such plenty, although on the coast of Lincolnshire it appears to exceed the other species in number. At Skegness, on that coast, we have found their eggs amongst the shingle; they were mostly two, sometimes three, in number, placed in a small depression, without any nest, about the size of those of the

stern, of a very pale brown, spotted all over with cinereous and dusky, but not so pointed as the eggs of that bird; the weight is about three drams.

This species inhabits the sea-coast, and sometimes the banks of lakes and rivers. It is very common on the sea-coast of France and Holland, and plentiful in North America. Its food consists of insects, rising from the water, herbs floating on the top of the waves, and sometimes the smaller sorts of fish.

RICHARD'S PIPIT (*Corydalla Richardi*, Vigors.)

*Anthus Richardi, *Vieillot*, Dict. d'Hist. Nat. Art. Pipi.—*Temm.* pl. Col. 101.

Mr. Vigors describes this rare visitor to our island as being, when alive, dusky, varied with whitish and black; the under parts whitish; the breast rust-coloured, with black spots; the two external quills of the wings margined with white; the less and the hinder claw very long. The latter characters shew that it does not belong to the genus *Anthus*, but has more resemblance to the larks.

A specimen was taken alive in Copenhagen Fields, near London, and another at Oxford.*

RING BLACKBIRD (*Merula torquata*, Ray.)

*Turdus torquatus, *Linn.* Syst. 1. p. 296. 23.—*Gmel.* Syst. 1. p. 832.—*Lath.* Ind. Orn. 1. p. 343. 56.—*Flem.* Br. Anim. p. 65.—Merula torquata, *Briss.* 2. p. 235. 12.—*Raii*, Syn. p. 65. A. 2.—Le Merle à Plastron blanc, *Buff.* Ois. 3. p. 340. t. 31.—*Ib.* Pl. Enl. 516. male.—Merle à Plastron, *Temm.* Man. d'Orn. 1. p. 166.—Ring Drossel, *Bechst.* Naturg. Deut. 3. p. 369. t. 4.—*Meyer*, Tasschenb. Deut. 1. p. 198.—*Frisch*, t. 30.—Ring Ouzel, Br. Zool. 1. No. 110. t. 46.—Arct. Zool. 2. p. 344. H.—*Will.* (Angl.) p. 194.—*Lewin's* Br. Birds, 2. p. 62.—*Lath.* Syn. 3. p. 46. 49.—*Ib.* Supp. p. 141.—*Mont.* Orn. Dict.—*Ib.* Supp.—*Bewick's* Br. Birds, 1. p. 96.—*Shaw's* Zool. 10. 227. t. 21. bad figure from Buffon.—*Selby*, pl. 44. fig. 2. p. 160.

Provincial.—Rock Ouzel. Tor Ouzel. Michaelmas Blackbird. Stirlin.*

This species is rather larger than the blackbird; length about eleven inches; bill dusky; irides hazel; the general plumage is black; the feathers on the upper parts are slightly margined with ash colour, those of the rump and belly deeply bordered with grey; on the breast is a large patch of white, somewhat in the shape of a crescent, with the horns pointing upwards. This mark, however, is subject to much variation; in some it is of a light brown, in others wholly wanting; the former is generally the female, the latter young birds not arrived at maturity.

This is not a common species in England, but they are sometimes seen in small flocks in different parts, in the spring and autumn, migrating from one part to another; in such cases they remain but a short time in a place. It is generally believed they do not winter with us, but they are known to breed in many of the barren and mountainous parts, par-

ticularly in Scotland and the north of England, as well as in some parts of Wales, on Dartmoor in Devonshire, and near the Land's End in Cornwall. *Selby says they arrive in this country in the spring, and immediately resort to the mountainous parts of England and Scotland, preferring those of a more stony and barren aspect.* We have also received it from the mountainous parts of Ireland. It is said to be found in many parts of the old continent, both in the warmer as well as colder regions; also in Africa and Asia; and in all these places it is noticed as migratory.

The nest is generally placed on the ground, under some small bush, and formed like that of a blackbird. * Those which I have seen in the wild track of mountainous country behind Carntable, in Ayrshire, were placed in the side of heathy banks, and never under bushes; it is there called Stirlin by the shepherds.* The eggs, in number, size, and colour, are much like those of the blackbird. It is rarely that more than one pair are seen near the same spot in the breeding season. They are very clamorous when disturbed, especially when they have young. Their food is snails, insects, and berries, particularly those of the juniper.

The young birds, before the white on the breast appears, have been considered as a different species, under the name of rock-ouzel; and, in the catalogue of Dorset birds, we are told these birds appear in Portland in their spring and autumnal flights, and are there called Michaelmas Blackbirds.

* "Its song," says Selby, "which it utters perched on the top of some stone or the summit of a rock, is confined to a few clear and powerful notes, not unlike those of the missel thrush. Like most of its tribe," he adds, "it is of a shy disposition, and does not readily admit of a near approach, except during the period when its nest contains unfledged young; at which time it endeavours to avert the attention of intruders by loud cries and feigned gestures."* About the end of October it quits its mountainous haunts for the warmer regions of France and Germany, where it passes the winter.

RING DOVE (*Columba palumbus*, LINNÆUS.)

*Columba Palumbus, *Linn.* Syst. 1. p. 282. sp. 19.—Fauna Suec. No. 208.—*Gmel.* Syst. 1. p. 796. sp. 19.—*Lath.* Ind. Orn. 2. p. 601. sp. 32.—*Briss.* 1. p. 89. 6.—*Flem.* Br. Anim. p. 47.—Palumbus torquatus, *Raii*, Syn. p. 62. A. 9.—*Will.* p. 135. t. 35.—Le Pigeon Ramier, *Buff.* Ois. 2. p. 531. t. 24.—*Ib.* pl. Enl. 316.—*Temm.* Pig. et Gall. 1. p. 78.—*Ib.* fol. pl. 2.—Colombe Ramier, *Temm.* Man. d'Orn. 2. p. 444.—Ringel Taube, *Bechst.* Naturg. Deut. 3. p. 949.—*Meyer*, Tasschenb. Deut. 1. p. 286.—*Frisch*, Vög. t. 138.—Ring Duif, *Sepp.* Nederl. Vög. 1. t. p. 9.—Ring Pigeon, Br. Zool. 1. No. 102.—Arct. Zool. 2. p. 329. B.—*Will.* (Angl.) p. 185. t. 35.—*Lath.* Syn. 4. p. 635. 29.—*Ib.* Supp. p. 198.—*Lewin's* Br. Birds, 4. t. 129.—*Albin*, 11. t. 46.—*Pult.* Cat. Dorset. p. 7.—

Walc. Syn. 2. t. 187.—Ring Dove, *Mont.* Orn. Dict.—*Bewick's* Br. Birds, 1. t. p. 270.—*Selby*, pl. 56. fig. 1. p. 288.

Provincial.—Quest. Wood Pigeon. Cushat. Cusha-Doo.*

This species weighs about twenty ounces; length eighteen inches. The bill yellowish; irides light yellow; the head, coverts of the wings, and scapulars, are of a deep bluish ash colour; the neck and breast vinaceous, beautifully glossed with green and copper colour, changeable in different lights; on each side the neck is a large patch of glossy white, which almost joins behind; the back and tail ash-colour, the latter black at the end; vent and thighs white, tinged with ash-colour; the bastard wing almost black, behind which a few of the coverts are white, forming a line down to the greater quills, which are dusky, edged with white; the legs are feathered much below the knee, which, with the feet, are of a purplish-red. There is little or no distinction in the plumage of the sexes; but the female is not quite so large.

This bird is indigenous to this island; and it is doubtful whether it migrates farther than from the northern to the southern parts.

In winter they assemble in large flocks, and constantly resort to woods to roost in the highest trees, especially those of the ash. The great numbers that are seen together at this season, has given rise to an opiniou that many come to us from the more northern parts of the world; but if we consider how dispersed all birds are in the breeding season, it is easy to imagine, the number appears greater when locally assembled.

Early in the spring it begins to pair, at which time the male is seen to fly in a singular manner, alternately rising and falling in the air. It forms a nest of a few small sticks, loosely put together, through which the eggs may frequently been seen; these are two in number, white, and exactly oval, larger than those of the common pigeon. Like that species, both sexes assist in making their nest: and the male sometimes relieves the female in sitting. The nest is sometimes placed among brush-wood, and in hedges, or large hawthorn-bushes; but more frequently in the fork of a tree, or against the body, when surrounded with ivy, and particularly in fir-trees.

* The bird does not always confine itself to woods, for I knew a pair breed, for several years, at the edge of a corn-field, in a large solitary hawthorn overhanging the river Ayr, at Sorn, in Ayrshire, although there was a wood of considerable extent on the opposite bank. This, however, must be considered rather an exception to the general rule; for it is most generally found in large woods. In Darent Wood, in Kent, I have observed half a dozen of wood-pigeon's nests, all within

sight, about eight or ten feet from the ground, and usually upon the forks of an oak branch, without any apparent concern about protection from above. On the contrary, the situation of most of these was peculiarly unsheltered and exposed. The nest itself, again, is a very slight structure, and still less calculated for warmth, or shelter; the hot nature of the parent birds, according to Albertus Magnus, not requiring this. It may, with the utmost propriety, be called a platform, being composed of a flat pile of twigs, not artfully interwoven, as is stated in some books, but laid crossways upon one another, in a rather loose manner, though not without neatness and attention to symmetry, for when completed, the structure is always very nearly circular. The largest and longest twigs, chiefly those of birch, are laid as a foundation, the size chosen becoming smaller as the work advances. It is mentioned in books, that the eggs may be seen through the twigs from below; and in some instances, this may be so, though not in those nests which I have found on exposed oak-boughs, in Darent Wood, which were more than one inch thick. I have remarked, indeed, that they use fewer materials when these are less wanted, as when the nest is, as I have frequently seen it, on the flat branch of a spruce or silver fir, in which case a very thin layer of fine twigs is constructed.[1]

There is a fable, *à la Æsop*, current in Suffolk, on this subject, which may amuse the reader. The magpie, it is said, once undertook to teach the pigeon how to build a more substantial and commodious dwelling; but instead of being a docile pupil, the pigeon kept on her old cry of "*Take two! Taffy! take two!*" The magpie insisted that this was a very unworkman-like manner of proceeding, one stick at a time being as much as could be managed to advantage, but the pigeon reiterated her "*two, take two!*" till mag, in a violent passion, gave up the task, exclaiming, "I say that one at a time is enough; and if you think otherwise, you may set about the work yourself, for I will have no more to do with it." Since that time the wood pigeon has built her slight platform of sticks, which certainly suffers much in comparison with the strong substantial structure of the magpie. Grahame says,

—— "So rudely is it formed,
That oft the simple boy, who counts the hours
By blowing off the dandelion flowers,
Mistakes the witch knot's for the cushat's nest."[2*]

Their food is grain and seeds of all kinds. In the autumn they

[1] Architecture of Birds, p. 157. [2] Birds of Scotland, p. 51.

devour acorns and beech-nuts greedily, swallowing them whole. In defect of these and grain, it eats turnip-greens and young clover, or green corn and ivy-berries. We have been at considerable pains to endeavour to domesticate this bird; and though we have tamed them within doors, so as to be exceedingly troublesome, yet we never could produce a breed, either by themselves or with the tame pigeon. Two were bred up together with a male pigeon, and were so tame as to eat out of the hand; but as they showed no signs of prolificacy in the spring, they were suffered to take their liberty in the month of June, by opening the window of the room in which they were confined, thinking the pigeon might induce them to return to their usual place of abode, either for food or to roost; but they instantly took to their natural habits, and we saw no more of them, although the pigeon continued to return. We shall here mention a curious assemblage we once bred up, and which lived together in perfect amity—a common pigeon, ring dove, white owl, and sparrow hawk, of which the ring dove was master.

RING OUZEL.—A name for the Ring Blackbird.

RING PHEASANT (*Phasianus torquatus*, Linnæus.)

Phasianus torquatus, *Gmel.* Syst. 2. p. 742.—Phasianus colchicus, *Lath.* Ind. Orn. p. 629. 4. B.—Ring Pheasant, *Lath.* Syn. 4. p. 715.—*Ib.* Supp. p. 208.—Ost. Menag. p. 57. 58. (M. F.)

This seems to be a mere variety of the common species, differing only in having a white ring round the neck; the plumage in general is thought to be more brilliant, and the markings more distinct. *Temminck says the one found in European preserves is a hybrid, between the common pheasant and the genuine Ring Pheasant (*Ph. torquatus*, Temm.) of China.*

It is said to have been first introdued by the late Duke of Northumberland, and was called the Barbary Pheasant. His Grace bred and turned out many at his seat at Alnwick, in Northumberland. Lord Caernarvon also turned out several at his seat at Highclere, in Berkshire; at both which places we have seen them, and the mixed produce between that and the common pheasant, in which the ring on the neck is very indistinct; sometimes only a few white feathers are to be found. It is supposed to be hardier and more easily reared in confinement than the other. *It is spreading faster than the other variety, particularly in the north.* It is said to be found in some parts of China, and in Tartary. The eggs no way differ from the common sort, which are of a light-brown colour.

RING PIGEON.—A name for the Ring Dove.

RING TAIL.—A name for the Hen-Harrier.

RING-TAILED EAGLE.—The Golden Eagle in the second year's plumage; long considered by naturalists as a distinct species.

RIPPOCK.—A name for the Tern.

ROCK DOVE (*Columba livia*, Brisson.)

* Columba livia, *Briss.* Orn. 1. p. 82. sp. 3.—*Lath.* Ind. Orn. 2. p. 590. sp. 2. var. B.—Colombe Biset. *Buff.* Ois. 2. p. 498.—*Ib.* pl. Enl. 510. *Temm.* Pig. et Gall. 1. p. 125.—*Ib.* edit. fol. pl. 12.—*Ib.* Man. d'Orn. 2. p. 446.—Haustaube, *Bechst.* Naturg. Deut. 3. p. 971.—*Meyer*, Tasschenb. Deut. 1. p. 288.—Biset, and White-rumped Pigeon, *Lath.* Syn. 4. p. 605. 2. A.—Rock Dove, *Mont.* Orn. Dict.—*Ib.* Supp.—The Wild Pigeon, *Bewick's* Br. Birds, 1. p. t. 267.—The Common Pigeon, or Wild Dove, *Low's* Faun. Orcad. p. 52.—*Selby*, pl. 56*. fig. 2. p. 292.

Provincial.—Rockier.*

Ornithologists seem to differ in opinion concerning the rock and stock pigeon; though it appears almost impossible to conceive them a distinct species. In those described under such names there seems to be so much similitude, except what may be expected from a species half reclaimed, and frequently returning to their natural wild habits again, that we cannot but consider them as one and the same species.

The Rock Dove is considered to be the origin of our tame pigeons, as it is said to possess the white on the lower part of the back, in which part the stock dove is described to be ash-coloured, and that this last is rather larger. But these variations we have observed in pigeons killed in their native haunts amongst the rocks on our coasts; and our dove-cote pigeons frequently have no white on the back. It is therefore probable many of our common species, after having been bred in a pigeon-house contiguous to such rocky situations, return to their natural habits, and there produce some variation in colour.

The bird now before us we killed on the cliffs in Cauldy Island, in South Wales. It weighed eleven ounces; length thirteen inches and a half; breadth twenty-two; the bill is brown, inclining to purplish-red; point dusky; irides light-yellow; the head dark bluish ash-colour; neck and breast glossed with green and copper, as viewed in different lights, most conspicuous on the sides and back of the neck; the upper part of the back and wing coverts pale ash-colour; across the middle of the greater coverts is a broad band of black, and another of the same on the ends of the secondary quills, running into each other on those feathers nearest the body; the greater quills are dusky, dashed with ash-colour, the outer ones darkest, and all of them most so towards the tips, slightly edged on their exterior webs with white; the lower part of the back white; the rump and tail dark bluish ash-colour, the ends of the latter black; the two exterior feathers whitish on the outer webs towards the base; the sides under the wings, and under wing coverts, white; the belly bluish ash-colour; legs red.

In another specimen, killed in the same place, the upper part of the back, and the whole of the wing coverts, are mottled with black and light ash-colour, without any regular bands across the wings. In every other respect it resembled the first; but this was rather larger, weighing twelve ounces; length fourteen inches. It was a female, and was shot as she flew from her nest. This must, however, be considered as a variety; for in the more remote parts, where the breed is pure, the bars on the wings seem to be a characteristic mark, and common to both sexes.

These birds have sometimes appeared in prodigious flocks in winter, frequenting our beech woods for the sake of the mast or seed of that tree. These flights, however, are less numerous and less frequent of late years. Sometimes they are seen in company with our common pigeons, at the barn-doors, in severe winters; and are said to be known by their inferior size and darker colour.

This bird generally breeds in caverns on our coasts, and in ruined edifices; and, we are told, sometimes builds in the holes of decayed trees. Perhaps these last have been called stock doves, supposing them a distinct species. Mr. White informs us, in his Natural History of Selborne, that stock doves formerly abounded in the beech woods near that place; and that amongst them were seen little parties of small blue doves, which were there called rockiers. However this may be, we are inclined to believe it is the same species, with some little variety. *Fleming agrees with Montagu in this opinion; against which there is the high authority of Temminck, and Selby thinks Montagu never saw the genuine stock dove at all.*

All the beautiful varieties of pigeons under the denomination of carrier, pouter, nun, owl, &c., are supposed to be derived from this species by domestication.

The only place where I have ever seen the Rock Dove in a wild state, was at Howford, near Mauchlane, in Ayrshire, where two or three pairs nestled on the cliffs of the romantic rocks overhanging the river, but in situations so inaccessible, that I never knew them robbed by the most daring boys. It would be hard to say whether these had strayed from some neighbouring dove-cot, or had originally come thither from some wild brood, though the former is not so probable, as instances, I believe, are rare, of domestic pigeons voluntarily deserting their birth-place.[1]

ROCKIER.—A name for the Rock Dove.

ROCK LARK.—A name for the Rock Pipit.

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[1] Architecture of Birds, p. 161.

ROCK OUZEL.—A name for the Ring Blackbird.

ROCK PIPIT (*Anthus rupestris*, NILSSON.)

* Anthus aquaticus, *Bechst.* Naturg. Deut. 3. p. 745.—Anthus petrosus, *Flem.* Br. Anim. p. 74.—Anthus rupestris, *Nils.* Orn. Suec. 1. p. 245. sp. 115.—Alauda campestris spinoletta, *Gmel.* Syst. 1. p. 79. sp. 4. var. B.—*Lath.* Ind. Orn. 2. p. 495. sp. 12. var. B.—Alauda petrosa, Trans. Linn. Soc. 4. p. 41.—Alauda obscura, *Gmel.* Syst. 1. p. 801. sp. 33.—*Lath.* Ind. Orn. 2. p. 494. sp. 7.—Pipit Spioncelle, *Temm.* Man d'Orn. 1. p. 265.—Wasser Pieper, *Meyer*, Tasschenb. Deut. 1. p. 258.—Dusky Lark, *Lewin's* Br. Birds, 3. t. 94.—*Don.* Br. Birds, 4. t. 76.—Rock Lark, *Mont.* Orn. Dict.—Sea Lark, *Walc.* Syn. t. 193.—Field or Rock Lark, *Bewick's* Supp. to Br. Birds, p. t. 26.—*Selby*, pl. 49. fig. 6. p. 214.

This species appears to have remained long either unnoticed, or confounded with others, by the early ornithologists. Mr. Lewin, in his work on British Birds, first gave a figure and description of it, by the name of the dusky lark, which was adopted by him at the suggestion of our author.*

The length of this species is six inches and three quarters; weight about seven drams. The bill is dusky, near seven-eighths of an inch long, from the apex to the corner of the mouth; irides hazel: upper part of the head, back of the neck, and tail coverts, are of a dark brown; back and scapulars of the same colour, obscurely marked with dusky strokes; above the eye and beneath the ear is a lightish-coloured stroke; the throat whitish; breast and belly yellowish white, the former blotched with large dusky spots; the sides marked with strokes of the same; under tail coverts light brown; the two middle feathers of the tail dark brown, the others dusky; outer one of a dirty yellow, white on the interior of the web and the point of the exterior; in the second feather the light colour is just visible at the end; the quill-feathers and coverts are dusky, slightly edged with light brown; legs and toes dusky; claws black; hind claw four-tenths of an inch long, and somewhat crooked.

Both sexes are alike.

The young birds are not maturely feathered till after the winter of the first year; till then the upper parts have a tinge of olivaceous ash-colour; beneath the lighter parts are yellowish, and the coverts of the wings more deeply margined with light brown; the base of the under mandible and legs less dusky.

We discovered these birds in great plenty on the coast of South Wales, where it was known by some of the natives by the name of rock lark; and afterwards found it not uncommon on all the coasts from Kent to the Land's-End in Cornwall, where the shores were abrupt; and have no doubt it inhabits most of the rocky shores throughout the kingdom. It seems wholly confined to the neighbourhood of

the sea, and is never found, even in winter, more remote than in the contiguous marshes within the occasional influx of the tide, depending chiefly on marine insects for its subsistence, and has never been observed to be gregarious. * I observed them in great numbers on the wild rocky shores of Normandy, and if not quite gregarious, very nearly so.*

The song, the manner of flying, and its habits in general are so like those of the meadow pipit, that it is probably owing to this circumstance it had remained so long in obscurity.

It begins breeding early in the spring. The nest is made of dry grass, marine plants, and very little moss externally, and lined with fine grass, with a few long hairs. This is generally placed on the shelf of a rock near the sea; sometimes at a considerable height, where there are a few scanty bushes or tufts of grass. It lays four or five eggs, of a dirty white, sprinkled with numerous specks of brown, darker and confluent at the larger end, so as to appear on that part wholly of that colour; in size they rather exceed those of the meadow pipit, weighing about thirty-six grains.

RODGE.—A name for the Gadwall.

ROLLER (*Coracias garrula*, LINNÆUS.)

*Coracias garrula, *Linn.* Syst. 1. p. 159. 1.—Fauna Suec. No. 94.—*Gmel.* Syst. 1. p. 378.—*Lath.* Ind. Orn. 1. p. 168. 1.—*Flem.* Br. Anim. 88.—Galgulus, *Briss.* 2. p. 64. 1. t. 5. f. 2.—Cornix cœrulea Gesneri, *Raii*, Syn. p. 42.—*Will.* p. 85.—Pica marina, *Raii*, Syn. p. 41.—*Will.* 89.—Garrulus argentoratorius, *Raii*, Syn. 41.—*Will.* 89.—Le Rollier, *Buff.* Ois. 3. p. 135. t. 70.—*Ib.* Pl. Enl. 486.—Rollier vulgaire, *Temm.* Man. d'Orn. 1. p. 127.—Blaue Racke, *Meyer*, Tasschenb. Deut. 1. p. 106.—*Frisch*, Vög. t. 57.—Roller, Br. Zool. App. t. 2.—*Will.* (Angl.) 131. t. 20.—Arct. Zool. 2. p. 235.—*Lewin's* Br. Birds, 2. t. 42.—*Lath.* Syn. 1. p. 406. 1.—*Ib.* Supp. p. 85.—*Mont.* Orn. Dict. —*Walc.* Syn. 1. t. 41.—*Bewick's* Br. Birds, 1. t. 85.—*Selby*, pl. 34. p. 86.*

This is the only species that has ever been met with in England, and that rarely, probably an accidental wanderer from Germany, where they are not uncommon.

It is described by Mr. Pennant to be the size of a jay; length twelve inches and a half; bill black, straight, hooked at the point; base beset with bristles, but which do not cover the nostrils; space about the eyes somewhat bare; the head, neck, breast, and belly, are of a light bluish-green; back and scapulars, reddish-brown; coverts, on the ridge of the wing rich blue; beneath them pale green; upper part and tips of the quills dusky; the lower parts of a fine deep blue; rump of this last colour; tail forked, of a light blue; the outer feather striped with black above, and beneath with deep blue, as is the case with such part of the quill-feathers as are black above; the other tail-feathers are dull green; legs short, and of a dirty yellow.

There are very few instances on record of this bird being found in England. One was killed in Cornwall, and another at Dunkeld, in Scotland. It is said to be plentiful in Germany, Sicily, and Malta, where it is sold in the markets and poulterers' shops; it is also found in Sweden, and Denmark. It haunts the woods in the breeding season, and makes a nest in a hole in the ground. Selby and Temminck say, the hole of a decayed tree, laying from four to seven eggs of a clear bluish white; at other seasons they congregate with rooks and other birds in tilled grounds, in search of food, which consists of grasshoppers, snails, millipedes, and other insects. It is a bird of a fierce and restless disposition.

ROOD GOOSE.—A name for the Brent Goose.

ROOK (*Corvus prædatorius*, RENNIE.)

*Corvus frugilegus, *Linn.* Syst. 1. p. 156. 4.—*Gmel.* Syst. 1. p. 366. sp. 4.—*Lath.* Ind. Orn. 1. p. 152. sp. 5.—*Flem.* Br. Anim. p. 88.—Cornix nigra frugilega, *Raii*, Syn. p. 83. A. 3.—*Will.* p. 84. t. 18.—Cornix frugilega, *Briss.* 2. p. 16. 3.—Le Freu ou Frayonne, *Buff.* Ois. 3. p. 55.—*Ib.* Pl. Enl. 484.—Freu, *Temm.* Man. d'Orn. 1. p. 110.—Saat Rabe, *Bechst.* Naturg. Deut. 2. p. 1199.—*Meyer*, Tasschenb. Deut. 1. p. 97.—*Frisch*, Vög. t. 64.—Rook, Br. Zool. 2. p. 221. 76.—Arct. Zool. 2. p. 250. A.—*Will.* (Angl.) p. 123.—*Lewin's* Br. Birds, 1. t. 35.—*Lath.* Syn. 1. p. 372. 4.—*Ib.* Supp. p. 76.—*Mont.* Orn. Dict.—*Bewick's* Br. Birds, 1. p, 71.—*Pult.* Cat. Dorset. p. 4.—*Shaw's* Zool. 7. p. 347.—*Selby*, pl. 30. p. 72.*

This well-known species of crow, is about the size of the carrion crow, and of the same black colour; the upper parts, like that bird, glossed with purple. The only marks of distinction in mature birds is, that this is bare of feathers about the base of the bill, which is whitish and scurfy. But as this is acquired by the bird's habit of thrusting its bill into the ground after worms and various insects, so the young of these two birds are not to be discriminated, except by their note, that of the rook not being so deep and hoarse as the crow. In their habits there is an essential difference, this species being content with feeding on the insect tribe, particularly the larvæ of the cock-chaffer. But rendering the husbandman this piece of service, it repays itself by taking some portion of his corn also. It is gregarious at all seasons, resorting constantly to the same trees every spring to breed, when the nests may be seen crowded one over another, upon the upper branches. It lays four or five eggs, much like that of the crow, of a greenish colour, spotted and blotched with dusky. After their young have taken wing, they all forsake their nest-trees, returning to them again in October to roost; but as winter comes on, they generally select more sheltered places at night in some neighbouring wood, to which they fly off together.

*At Baume-la-Roche, a few leagues from Dijon, M. Montbeillard saw a colony of Rooks, which he was told had nested for half a century in the holes of the rocks facing the south-west; and they were so familiar, that they sometimes ventured to steal the reapers' luncheons. From some cause they disappeared, and their place was immediately occupied by a party of the hooded crow (*Corvus cornix*, Linnæus.)[1]

This, however, is no less anomalous in the case of the Rook, than that of the jackdaw nestling in rabbit burrows. Their usual habit is to build in large communities, similar to the herons. Ten or twelve nests are sometimes to be seen on the same tree; and there are frequently considerable numbers of trees thus loaded with nests all contiguous to each other. Schwenckfeld remarks that they commonly prefer large trees planted round cemeteries and churchyards; but amongst the numerous rookeries with which I am acquainted, not one occurs in such a locality. At Lee, in Kent, on the contrary, though there are fine elms close by the churchyard, the neighbouring Rooks prefer those around the adjacent mansion-house, lately occupied by Lady Dacre, about fifteen or twenty furlongs from the church; while, at a similar distance farther, another more numerous rookery is established. Though they usually select tall trees, they do not do so in every case; for I observed, in 1819, a rookery on a clump of young oaks in the Duke of Buccleugh's park, at Dalkeith, near Edinburgh, none of which were above ten or twelve feet high, although they could have found abundance of very lofty trees in the beautiful grounds around this noble mansion.

Mr. Jennings mentions another instance, with which also I am personally acquainted, of a rookery established on trees of inferior height, in the garden of the Royal Naval Asylum, at Greenwich, although there are many fine lofty elms in the park hard by, upon which not a single rook's nest is to be seen. He thinks it not improbable, that they have been influenced in their selection by the noise of the boys in the play-ground of the Asylum.[2] At Dalkeith, however, I may remark, that the rookery on the low oaks was in the most silent and sequestered part of the park.

Rooks appear to be partial to the metropolis; for, besides the old rookery in the Temple Gardens, which has been (if we mistake not) long abandoned, there was an extensive one in the gardens of Carlton Palace, which, in consequence of the trees having been cut down, re-

[1] Oiseaux, Art. Le Freux. [2] Ornithologia, p. 76.

moved in the spring of 1827 to the trees behind New-street, Spring Gardens. "There was also," says Mr. Jennings, "for many years, a rookery on the trees in the churchyard of St. Dunstan's in the East, a short distance from the Tower: the rooks, some years past, deserted that spot, owing, it is believed, to the fire that occurred at the old Custom House; but in the spring of 1827, they began to build again on the same trees." Mr. Hone has recorded the following anecdote of another rookery on some large elm-trees in the college garden behind the Ecclesiastical Court, in Doctors' Commons:

"Some years ago there were several large elm-trees in the college garden behind the Ecclesiastical Court, Doctors' Commons, in which a number of Rooks had taken up their abode, forming, in appearance, a sort of *convocation* of aërial ecclesiastics. A young gentleman, who lodged in an attic, and was their close neighbour, frequently entertained himself with thinning this covey of black game, by means of a cross-bow. On the opposite side lived a curious old civilian, who, observing from his study, that the rooks often dropped senseless from their perch, or, as it may be said, without using a figure, *hopp'd the twig*, making no sign, nor any sign being made to his vision to account for the phenomenon, set his wits to work to consider the cause. It was probably during a *profitless* time of peace, and the doctor having plenty of leisure, weighed the matter over and over, till he was at length fully satisfied that he had made a great ornitholigical discovery, that its promulgation would give wings to his fame, and that he was fated by means of these Rooks to say,

'Volito vivus per ora virum.'

His goose-quill and foolscap were quickly in requisition, and he actually wrote *a treatise*, stating circumstantially what he himself had seen, and, in conclusion, giving it as the settled conviction of his mind that *Rooks* were subject to the *falling sickness!*"[1]

At Newcastle a rookery does or did exist, at no great distance from the Exchange; and it is recorded of a pair of these, after an unsuccessful attempt to establish themselves in the rookery, that they took refuge on the Exchange spire; and though they continued to be persecuted by individuals from the adjacent colony, they succeeded in building a nest on the top of the vane, undisturbed by the noise of the populace below. They returned, and built their nest every year on the same place, till 1793, soon after which the spire was taken down, A miniature en-

[1] Every-day Book, i. 494, 5.

graving of the nest on the spire was executed, the size of a watch paper, and enough were sold to clear ten pounds to the engraver.[1]

A similar circumstance is recorded by Darwin, not of one rook only, but a whole colony, building on the spire of Welborn Church, in Lincolnshire, on the authority of Mr. Ridgehill, the rector of the parish in 1794. The parishioners affirmed that the rooks had built in the spire, time immemorial. There was a tradition that formerly a rookery, in some high trees, adjoined the churchyard, which being cut down, probably in the breeding season, the Rooks removed to the church, building their nests on the outside of the spire, on the tops of windows, which, by their projection a little from the spire, made them convenient room; and when they could not find convenience there, they built on the inside. "I saw," says the Rev. J. Darwin, of Carleton Scroop, "two nests, made with sticks, on the outside and in the spire; and Mr. Ridgehill said there were always a great many."[2] A single rook's nest is now (May, 1831) to be seen in the metropolis, on the tree at the bottom of Wood-street, a few yards from Cheapside.*

The Rook is partial to cultivated parts, as well as to the habitation of man. It has been said that the bill of the Rook is less arched than that of the crow, and that the tail feathers are rounded; but these have never appeared to us materially distinct.

*If Levaillant is correct as to the species, it is a curious circumstance that this bird, at the Cape of Good Hope, should not have the nostrils bare of feathers, as is usual in Europe; an evident proof that they have no occasion, in that climate, to search under ground for their sustenance.

The Rook does not deposit the food intended for its young in its craw, and disgorge like the pigeon or dove tribe, but is furnished with a small pouch at the root of the tongue, from whence the male ejects the contents of its magazine, to feed the female during the incubating season; and both to feed their young. At this season the pouch may be easily observed distended with food, as they come from the field to their nest.*

ROSE THRUSH.—A name for the Ouzel.

ROSEATE TERN (*Sterna Dougalli*, MONTAGU.)

Hirondelle de mer Dougalli, *Temm.* Man. d'Orn. 2. p. 738.—Roseate Tern, *Flem.* Br. Anim. p. 143.—*Mont.* Supp. Orn. Dict.

The length of this species is fifteen inches and a half; the bill one inch five-eighths long to the feathers on the forehead, slender, slightly

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[1] Bingley's Anim. Biogr. ii. 246, 6th edit. [2] Zoonomia, i. 341, 3d edit.

curved, and of a jet black-colour, except at the base, which is of a bright orange, extending about the eighth of an inch in breadth on the upper mandible from the corner of the mouth, round the front and round the nostrils; and on the under mandible, extending from the angle of the mouth along the sides as far as the feathers on the chin, and rather beyond on the under part; the inside of the mouth and throat bright orange, becoming darker towards the end of the bill; irides black; the tongue one half the length of the bill, of a pale red-colour, and bifurcated at the point; the forehead, crown, hind part, and sides of the head, taking in the eyes, except a small portion of the lower part of the orbit, jet black; the black feathers on the hind head thinly diffused, and flowing over the white down the back of the neck; the feathers on the sides of the head, extending in a narrow line along the upper mandible to the nostrils, and on the sides of the neck white; the whole under parts are white, but the fore part of the neck, breast, and belly, to beyond the vent, are tinged with a most delicate rosy blush; the back, scapulars, and coverts of the wings pale cinereous-grey; the quill-feathers are narrow; the first has the exterior web black, with a hoary tinge; the others are hoary on that part; and part of the inner web next to the shaft of the first three or four is hoary black, becoming by degrees paler in the succeeding feathers, all deeply margined with white quite to the tip, and the shafts of all are white; length of the wing from the elbow to the extremity of the first quill-feather nine inches and a quarter; the tail is greatly forked; the outer feather is seven inches long, extending two inches beyond the wings when closed, extremely slender, and the end for an inch or more slightly ciliated; the middle feathers are scarcely three inches in length; they are all white, destitute of any markings; the legs and feet, including the bare space above the knee, which is nearly half an inch, are of the brightest orange-colour; the claws black and hooked.

Such is the description of this interesting species of tern, to which we add Doctor M'Dougall's comparative observations:—"This tern," he says, "is of light and very elegant figure, differing from the *Sterna hirundo* in the size, length, colour, and curvature of the bill; in the comparative shortness of the wing in proportion to the tail; in the purity of the whiteness of the tail, and the peculiar conformation and extraordinary length of the lateral feathers. It also differs from that bird in the length, colour, and size of the legs and feet. From the sandwich tern it differs essentially in the shortness of the wings in proportion to the tail, and completely in the colour of the legs and feet."

From these notes, which Doctor M'Dougall took upon the spot where

the bird was killed, we might collect sufficient information to consider it as distinct from any of the known British species, although many of its characters are very similar to those of *Sterna Boysii*. To the *Sterna hirundo* its principal and almost only similarity is that of size, being, if any thing, rather inferior in bulk, but of greater length, by reason of the extraordinary long feathers of the tail."

The length of the bill is not only rather superior, but is more subulate or slender, and not so much curved, independent of the difference in colour, as noticed in Doctor M'Dougall's remarks. With respect to the colour of their plumage, they are so essentially different, as to render it scarcely worth comparing; the upper parts of the *Hirundo* are much darker, and the under parts destitute of any roseate tinge; the quills are darker and longer, and have no margin of white near the end; and the tail is less forked, the feathers not white, but pale cinereous, with the outer feathers black on the exterior web.

With all the British species of *Sterna* before us in several of their usual changes, we can have no difficulty in agreeing with Doctor M'Dougall, that his bird is distinct from either of those recorded as British, and, we really believe, is entirely a new species.

The places of resort of the Roseate Tern are two small flat rocky islands, in the Firth of Clyde, called Cumbrae Islands, chiefly about Milford Bay. On these islands the common tern swarms, so that Doctor M'Dougall and his companions could scarcely step without treading upon the young birds or eggs; of the latter, two were usually together, but sometimes as many as twenty, which bespeaks a congregate incubation. The first of the new species was shot by accident by one of his companions, and happening to fall close to him on the rocks, he was attracted by the beautiful appearance of its breast, and immediately pointed out the peculiarity of the species, and requested the gentlemen who accompanied him to shoot others. Two more were procured, and several escaped wounded, for it was easy to perceive the difference between this and the common tern, even on the wing. After having attentively examined the actions of the Roseate Tern, and its appearance when flying, the Doctor computes that there was not above one in two hundred of the common tern, but that they were easily singled out by the sportsmen, amidst thousands of the other species, from the circumstances of its comparative shortness of wing, whiteness of plumage, and by the elegance and comparative slowness of motion; sweeping along, or resting in the air almost immoveable, like some species of the hawk; and from the size being considerably less than that of *Sterna hirundo*.

From the continual alarm of these birds, occasioned by the presence of the Doctor and his companions on these little islands, neither the eggs nor the young of the Roseate Tern could be clearly ascertained; but several eggs were collected, that differed in size, colour, and shape.

It is more than probable, that this bird will be found hereafter to congregate in other places, not remote from the longitudinal line in which it was first discovered, although it has hitherto passed unnoticed amongst a host of the common tern; actual inspection enables us to bear record of it as a distinct species, upon ocular evidence, if such could be wanting, in addition to the excellent history given by Doctor M'Dougall.

ROSE LINNET.—*Fleming has given this appellation to the Redpole, most inappropriately, as it appears to me, particularly when there is an undecided controversy about these linnets; Temminck holding with Montagu, that there are but two species, the linnet and the redpole, in which he is followed by Selby and Fleming, and opposed by the high authority of Vieillot.[1] I am quite certain that Fleming is wrong in giving Rose Lintie as the Scotch for redpole, and I am equally certain that the call and song of the true Rose Lintie are quite different from those of the linnet. My own observations agree exactly with the following remarks of Syme, so far as the grey and Rose Linnets are concerned, though I am doubtful about his greater redpole.

"We are rather inclined to think," he says, "that the linnet, grey linnet, or brown linnet, the Red-breasted or Rose Linnet, and the greater redpole, are three distinct birds, but as closely allied to each other as the three species of wagtails are to one another. We shall state our reasons for thinking so. The grey linnet is rather less, and more slender than the redpole. The white on the quills and outer feathers of the tail of the linnet, is broader and brighter than that of the redpole. The bill of the redpole is rather larger, and broader at the base, than that of the linnet. The marks on the breast of the redpole, in all its changes of plumage, run in decided streaks, pointing downwards, while those on the breast of the linnet are much fainter, and more inclining to an irregular mottled appearance. The eggs of the redpole are of a bluish-white colour, marked with specks and lines of dingy purple,—those of the linnet are reddish-white, freckled with small spots of brownish-orange; but, above all, the songs of the two birds are different: both are good, but we think that of the linnet the

[1] Mem. della R. Academia de Torino, 1816, pp. 193, &c.

best; and the song of the Red-breasted Linnet differs from both. Now, if our own experience is correct, we have, from observation, been always led to believe that the song of all birds of the same species, in a wild state, is invariably the same. It is true, the habits of these three birds are very similar. They frequent the same places, and build their nests in the same kind of bushes, which are generally furze or whins; but the redpole is much more wild and shy than the linnet.

In Scotland there are vast numbers of grey linnets, but the redpole and Red-breasted Linnet are rather rare birds in that country;—a thousand grey linnets may be found for one redpole, and five or six hundred grey for one Red-breasted Linnet. In spring and summer we have often had the nests of grey linnets, and seen numbers of them shot in winter, spring, summer, and autumn, but always found the plumage nearly the same;—it is lighter, and more of a greyish-brown, than either the Red-breasted Linnet or redpole. The plumage of the last birds is more of a tint between amber and chesnut-brown;—that of the grey linnet is between yellowish and hair-brown; but the aspect, as well as the colours of the three birds, are very different from each other. The grey linnet never has red on its breast;—the red on the breast of the Red-breasted Linnet is pale, and of a tint between carmine and lake red, softly waved transversely;—that on the breast of the redpole is deep artereal blood-red, streaked downwards, and strongly marked. That redpoles, in a state of confinement, lose the red altogether, may be accounted for by change of food, or the privation of something they were accustomed to in a wild state. Hempseed changes the plumage of the bullfinch to black, and very long confinement, or age, or some other cause, affects the goldfinch, so that it assumes a white appearance; but we never could perceive any difference in the plumage of wild and tame linnets."*

ROSE OUZEL (*Pastor roseus*, Temminck.)

*Pastor roseus, *Temm.* Man. d'Orn. 1. p. 136.—*Flem.* Br. Anim. p. 66.—Turdus roseus, *Linn.* Syst. 1. p. 294. 15.—*Gmel.* Syst. 1. p. 819. sp. 15.—*Lath.* Ind. Orn. 1. p. 344. sp. 59.—Sturnus roseus, Scop. Ann. 1. No. 191.—Turdus Seleucis, *Gmel.* Syst. 1. p. 837. 1. sp. 26. female.—Merula rosea, *Raii*, Syn. p. 67. 9.—*Will.* p. 143.—*Briss.* 2. p. 250. 20.—Merle couleur de rose, *Buff.* Ois 3. p. 348. 22.—*Ib.* Pl. Enl. p. 251.—Le Roselin, *Le Vaill.* Ois. d'Afric. 2. p. 96.—Martin Roselin, *Temm.* Man. d'Orn. 1. p. 136.—Rosenfarbige-Drossel, *Meyer*, Tasschenb. Deut. 1. p. 201.—*Bechst.* Naturg. Deut. 3. p. 39. 3.—Rose-coloured Ouzel or Thrush, Br. Zool. App. No. 5. t. 5.—Arct. Zool. 2. p. 344. 9.—*Will.* (Angl.) p. 194.—*Lewin's* Br. Birds, 2. t. 64.—*Lath.* Syn. 3. p. 50. —*Mont.* Orn. Dict.—*Wall.* Syn. 2. t. 196.—*Don.* Br. Birds, t. 24.—*Bewick's* Br. Birds, 1. and App. with figure of male.—*Selby*, pl. 36. fig. 2. p. 94.*

This beautiful species is rather less than the blackbird. Length near eight inches; bill three quarters of an inch long, a little bent, of

a flesh-colour, blackish at the base; irides pale brown; head adorned with a long pendant crest of loose silky feathers falling backwards, which, as well as the neck and upper part of the breast, is of a velvet black, with violet and green reflections; the whole of the belly and back of a delicate peach-blossom red; wings and tail brownish black, with violet reflections; under tail coverts and thighs black; legs flesh red, very strong and muscular.

The female is similar to the male bird in markings, but the crest is shorter, and the red less pure in its tint.

The young of the year have the bill of a blackish brown-colour; no crest; head and all the upper parts of the body hair-brown, tinged with grey; wing coverts edged with greyish white; throat and centre of the belly white; legs and feet wood-brown. It can only be considered as an occasional visitant to this country.

* Selby says the one figured by him was shot out of a small flock of these birds and young starlings intermixed, upon the sea-coast near Bamburgh Castle, in the month of July, 1818. Another male bird was taken, about the same time, in a tan-pit near Newcastle-upon-Tyne; and other specimens are mentioned as having been obtained in the neighbourhood of Ormskirk, in Lancashire. It is a native of the warmer parts of Asia and Africa, where it is very common, living and feeding with the starling species. It is also a regular periodical visitant in Italy, Spain, and the southern provinces of France. In its mode of life, it is of great benefit in many countries, by preying on the *larvæ* of particular insects; in the search after which it displays great assiduity, and is, on that account, highly esteemed and protected by the inhabitants. Its nest is made in the holes of trees, and in old walls, but the number and colour of its eggs are not mentioned. The young, in their nestling plumage, are very unlike the parent birds, and greatly resemble the young of the starling.

The French translator of Bechstein's Manuel des Oiseaux has added in that work some interesting remarks respecting this species. "A sportsman," says he, "discovered, near Meiningen, a covey of eight of these birds proceeding slowly towards the north, one of which he succeeded in securing. In a short time it became so tame as to take insects from the hand, when presented to it. Its song at first consisted only of a few harsh and inharmonious notes, but by degrees the tones became clearer and more sustained. An amateur in song birds, who heard it for the first time, thought he listened to a concert, consisting of the starling, goldfinch, and aberdevine, and when he saw it was alone, could hardly believe that this music proceeded from one bird."*

ROTCH (*Mergulus melanoleucus*, Ray.)

Uria Alle, *Temm.* Man. d'Orn. 2. p. 928.—Alca Alle, *Linn.* Syst. 1. p. 211. 5.—*Gmel*, Syst. 2. p. 554.—Mergulus melanoleucus rostro acuto brevi, *Raii*, Syn. p. 125. A. 5.—*Will.* p. 261. t. 59.—Small Black and White Diver, *Will.* (Angl.) p. 343.—*Edw.* t. 91.—Greenland Dove, *Albin*, 1. t. 85.—Le petit Guillemot, *Buff.* Ois. 9. p. 354.—Little Auk, Br. Zool. 2. No. 233. t. 82.—*Ib.* fol. 137. t. K. 4. f. 1.—Arct. Zool. 2. t. 429.—*Lath.* Syn. 5. p. 327. 2.—*Ib.* Ind. Orn. 2. p. 795. 10.—*Lewin's* Br. Birds, 6. t. 223.—*Walc.* Syn. 1. t. 88.—*Pult.* Cat. Dorset. p. 17.—Uria minor, *Briss.* 6. p. 73. 2.—*Ib.* 8vo. 11. p. 378.—Sea Turtle, *Bewick's* Br. Birds.

Provincial.—Rochie or Ratch.

*The birds of this species that visit Great Britain in the autumnal and winter months, most certainly come from the more northern parts of Europe, and very few, if any, breed with us, except in the northern parts of Scotland. They come from the frozen shores of Greenland and Spitzbergen, but remain contented where they can obtain food from the liquid element, and consequently few migrate so far as the southern parts of England.

Three specimens have come under examination that were taken in the south of England in the winter; one on the 4th of December, in the year 1804, another on the 25th of November, 1805, and the third on the 17th of January, 1806. These were dissected in order to discover the sex, with a view to ascertain if there was any sexual difference in the plumage, it having been said that the throat of the male was black. The first of these proved to be a male, the description of which is as follows:—

Length eight inches and a half; upper part of the head black, taking in the eyes, which are whitish; the sides of the head are white, which runs backward and forms a narrow band across the nape, sprinkled with dusky, but immediately above the eye is a small white spot; the whole under parts white; the chin and fore-part of the neck speckled dusky; the intermediate part, or throat, pure white; scapulars with four or five white streaks, or marks, disposed in longitudinal lines; the thighs are mixed with a few black feathers; the upper parts of the plumage are of the usual black colour, and the secondary quills tipped with white; legs and feet dusky.

The Rotch has sometimes been found dead very remote from the sea. The Rev. Mr. Dalton, of Copgrove, near Knaresborough, in Yorkshire, assures us that both this and the petrel have been found near his house. Whether these were driven by storms, or attempted to cross the land from one sea to the other, is difficult to determine.*

ROTHERMUCK.—A name for the Bernacle Goose.

ROUEN DUCK.—A variety of the common duck, (*Anas boschas*,)

of a larger size; plumage the same. Being half domesticated, it frequently returns to its natural wild habits, where it breeds with the wild species. It is frequently killed in our rivers and decoys.

ROUGH-LEGGED BUZZARD (*Buteo lagopus*, Fleming.)

* Falco Lagopus, *Gmel.* Syst. 1. p. 260.—*Lath.* Ind. Orn. 1. p. 19. 33.—*Meyer*, Tasschenb. Deut. 1. p. 37.—Buteo Lagopus, *Flem.* Br. Anim. p. 54.—*Vigors*, Zool. Jour. 2. p. 340.—Falco Sclavonicus, *Lath.* Ind. Orn. 1. p. 26. 54.—Buse Pattue, *Temm.* Man. d'Orn. 1. p. 65.—Buse Gantee, *Vail.* Ois. d'Afr. 1. pl. 18.—Rauchfussiger Busard, *Bork.* Deut. Orn. Heft. female.—Rough-legged Falcon, *Lath.* Syn. 1. p. 75.—*Shaw's* Zool. 7. p. 145.—*Mont.* Orn. Dict.—*Ib.* Supp.—*Bewick's* Br. Birds, Supp.—Dusky Falcon, *Penn.* Arct. Zool.—*Selby*, p. 20. pl. 7.*

This species measures upwards of two feet in length; the wings are long, and reach near to the end of the tail when closed; the bill is dusky; cere and irides yellow; the head, neck, and breast, yellowish white, streaked with brown; those on the breast large; the lower part of the sides, above the thighs, and belly, except a line down the middle, dusky brown; the scapulars and wing coverts blotched with dusky brown, the former mixed with yellowish white, the latter inclining to ferruginous; the quill-feathers white at the base, dusky black at the ends; the outer webs dashed with cinereous; shafts white; the tail is brown one-third from the end, across which are two faint bars of dusky black; the rest white, with a few spots across the upper part, resembling a broken bar, of brown; the tip white; upper tail coverts white, streaked with brown; the legs are covered with pale, dull, yellow feathers, down to the feet, spotted with brown; thighs the same; feet yellow; claws black.

This bird appears to be subject to some variety. That described by Mr. Pennant, shot near London, had the extreme half of the tail brown, tipped with dirty white.

Another, shot in Suffolk, had the tail of a cream-coloured white; near the tip is a brown bar above an inch in breadth; above that another, half an inch broad; and above these, each feather had a spot upon it in the middle, resembling, when spread, a third bar; the two outer feathers on each side are marked with a few irregular spots of brown on the outer webs, almost the whole of their length. This bird was less than the former, measuring only one foot ten inches.

The Rough-legged Buzzard is a native of the more northern parts, and is rarely met with in England. That from which the first description is taken, was picked up dead on the coast of Kent in the winter of 1792, presented to us by Dr. Latham, and is now in our museum.

* "The flight of these birds," says Selby, "is smooth, but slow, and not unlike that of the buzzard; and they seldom continue any length

of time on the wing. They prey upon wild ducks and other birds, which they mostly pounce upon on the ground; and it would appear that mice and these must constitute their food, as the remains of both were found in the stomachs of those that were killed. Their favourite haunts are the skirts of forests, in the neighbourhood of a marsh, or water." The dusky falcon of the Arctic Zoology seems to be a variety of this bird; its being rather smaller may be occasioned by age or sex. Levaillant gives this bird as an inhabitant of the Cape of Good Hope, but acknowledges that he has seen a species in Lorrain, in France, very similar, "and which is very probable," says Dr. Latham, "as we have the bird in some of the counties in England." This remark of Dr. Latham, whose ornithological credit stands so deservedly high in estimation, may stamp the opinion that the booted falcon, as well as the Rough-legged Buzzard, is a native of England; whereas we have the Doctor's authority for saying, that the variety found in England, similar to that observed in Lorrain, is probably the male, or variety of the *lagopus*, as suggested by Bechstein. Many ornithologists have also been of opinion that the booted falcon (*Falco pennatus*) is a variety of this species, to which it bears a close resemblance in size and colour. It may be readily distinguished, however, by the size and form of the bill, and the uniform brown colour of the tail, which, in the Rough-legged Buzzard, is always white at the base. In autumn and winter they retire to the north of Europe, and sometimes to Holland. "The nest," says Temminck, "is built on some lofty tree, where it lays four eggs, spotted with reddish brown."*

ROYSTON CROW.—A name for the Chough.

RUDDOCK.—A name for the Redbreast.

RUFF (*Tringa pugnax*, LINNÆUS.)

Tringa pugnax, *Linn.* Syst. 1. p. 147. 1.—*Gmel.* Syst. 2. p. 669.—*Lath.* Ind. Orn. 2. p. 725. 1.—*Raii*, Syn. p. 107. A. 3.—*Will.* p. 224. t. 56.—*Briss.* 5. p. 240. 18. t. 22. f. 1. 2.—*Ib.* 8vo. 2. p. 273.—*Flem.* Br. Anim. p. 110.—Combattant, ou Paon de Mer, *Buff.* Ois. 7. p. 521. t. 29. 39.—Machetes, *Cuv.* Reg. Anim. —Ruff and Reeve, Br. Zool. 2. No. 192. t. 69.—*Ib.* fol. 123. t. E.—Arct. Zool. 2. p. 479. A.—*Will.* (Angl.) p. 302. t. 56.—*Albin.* 1. t. 72. 73.—*Lath.* Syn. 5. p. 159. 1.—*Lewin's* Br. Birds, 5. t. 106.—*Walc.* Syn. 2. t. 144.—*Don.* Br. Birds, t. 19.—*Bewick's* Br. Birds, 2. p. 95.

FEMALE AND YOUNG.

Tringa littorea, *Gmel.* Syst. 1. p. 677.—*Lath.* Ind. Orn. 2. 731. 15.—Tringa Grenovicentis, Greenwich Sandpiper, *Ib.* 2. 731. 16. and Syn. Supp. 1. p. 249.—Shore Sandpiper, *Lath.* Syn. 5. p. 171.—Totanus cinereus, *Briss.* 5. 203. 17. 2. Tringa equestris, Equestrian Sandpiper, *Lath.* Ind. Orn. 2. p. 730. 14.—Gambet, and Yellow-legged Sandpiper, *Mont.* Orn. Dict. *Ib.* Supp. and App.

This singular species is in length about one foot; bill yellowish, in some black; irides hazel: the face is covered with yellow pimples; on the back part of the neck the feathers are very long, and

stand out on each side in a remarkable manner. The colour of this, as well as of other parts, varies so much, that scarce two birds are alike; in general the ruff is barred with black; in others white, or plain brown; the upper parts in general are brown, more or less barred with undulated lines of black; lower belly, vent, and upper tail coverts white; the breast most frequently partakes of the same colour as the ruff; quills dusky; the four middle tail feathers are barred with black, the rest plain cinereous-brown; legs yellow.

This is the summer dress, for the ruff is only thrown out in the spring, as well as the carunculated appearance on the face, both of which are lost in the autumn. In young birds of the first year these are wanting, at which time they are called stags; and, as Mr. Pennant observes, might be mistaken for a different species. But that author remarks that the coverts of the wings, which are brown, inclining to ash-colour, and colour of the tail, are invariable marks of distinction.

The female, or Reeve, is less than the male: the upper parts are brown; the middle of each feather dusky; the edges pale; the greater quills dusky; secondaries barred rufous-brown and black; belly, vent, and upper tail coverts white; tail dusky; legs yellowish; lays four white eggs, marked with large ferruginous spots, which she deposits in a tuft of grass.

This species is very local with us; it seems to be confined to the fens of Lincolnshire, Cambridgeshire, the East Riding of Yorkshire, and the Isle of Ely. *Without doubt it leaves this country in the autumn, with only a few exceptions, one of which occurred on the 27th of December, 1808: it was shot near Slapton, on the south coast of Devon, and presented to us by Mr. Holdsworth. Between this specimen and that which has been described as the Greenwich sandpiper, there is only a trifling difference.

The author of Rural Sports remarks that, "if observers had not assured us that these birds came from the north, we might draw the opposite inference, that they arrive from the south. It may therefore be premised, (adds this author,) that it is the case with these as with the woodcocks, which are said to come from the east, and return to the west or south, but which in some countries only descend from the mountains to the plains, and again return to the heights. It is even probable, (continues this writer,) that the Ruffs remain in the same country, only shifting to different parts of it as the season changes, or perhaps may pass unobserved, intermixed with the dusky sandpipers, or the horsemen, to which they have great analogy, after moulting in June."

There requires no more argument in support of an opinion, that these birds come from the south to visit us, and other northern latitudes, in the breeding season, and return again south to winter, than that from whatever quarter the woodcocks come in their annual migration, by the same route do they return, and not in an opposite direction. There can be no doubt that all migrative birds who come to us in the breeding season, come from more northern latitudes: those migrating species which are found to inhabit this island and similar latitudes in winter, retire more north to perform the great dictates of nature. We may be assured the Ruff is no more to be met with in such latitudes as England during the winter months, than the woodcock is in the summer; for we must conclude such a phenomenon as an accidental appearance of either out of their respective seasons, to be occasioned by defect or indisposition in the usual migrative months.

Latitudinal influence is the sole cause of such periodical flights, not longitudinal; no birds bend their course east or west, however they may veer a little by instinct to avoid difficulties, or may be driven by tempests out of their natural course.

The Ruff visits much higher latitudes on the continent in the breeding season than any part of England: it breeds in the swamps of Lapland and Siberia, but perhaps does not find its way so far westward as Iceland; nor have we heard of it so far in that direction as our neighbouring and sister kingdom, Ireland. At present the few, comparatively speaking, that visit Great Britain, confine themselves in the breeding season to the eastern parts, where the only extensive fens remain that are congenial to their habits: we are, however, assured, on the authority of a very old sportsman, that they were not uncommon in the fens about Bridgewater, in Somersetshire, before they were drained and enclosed. And in a tour through Lincolnshire, during which we took every means in our power, to become intimately acquainted with all the history of this singular species that could be obtained, we found that they were become much more scarce than they were before a large tract of the fens were drained and enclosed; and will, as agriculture increases, be entirely driven from the island. A few Ruffs are still found about Crowland, but the north fen near Spalding, and the east and west fens between Boston and Spilsby, are the only parts that appear to produce them with certainty, though there they are by no means plentiful.

The trade of catching Ruffs is confined to a very few persons, and at present scarcely repays their trouble and expense of nets. These people live in obscure places on the verge of the fens, and are found out

with difficulty; for few, if any birds, are ever bought, but by those who make a trade of fatting them for the table; and they sedulously conceal the abode of the fowlers; so much so, that by no art could we obtain from any of them where they resided; and in order to deceive us, after evading our entreaties, they gave us instructions that led us quite a contrary direction. The reason of all this was obvious; for after much labour and search, in the most obscure places, (for neither the inn-keepers, nor other inhabitants of the towns, could give any information, and many did not know such a bird was peculiar to their fens,) we found out a very civil and intelligent fowler, who resided close to Spalding, at Fen-gate, by name William Burton, (we feel a pleasure in recording his name, not only from his obliging nature, but for the use of others in similar pursuits;) and, strange to say, that although this man had constantly sold Ruffs to Mr. Towns, a noted feeder, hereafter more particularly noticed, as also to another feeder, at Cowbit, by the name of Weeks, neither of those persons could be induced to inform us even of the name of this fowler. The reason, however, was evident, and justly remarked by Burton, for he obtained no more than ten shillings per dozen, whereas Weeks demanded thirty shillings for the like number he had the same day bought of Burton. The season was far advanced, and we were obliged to buy some at that price of Weeks, for Burton could not then catch us as many as were required.

At this time we were shewn into a room where there were about seven dozen males and a dozen females, and of the former there were not two alike. This intrusion to choose our birds, drove them from their stands, and compelling some to trespass upon the premises of others, produced many battles.

By this feeder we learned, that two guineas a dozen was now the price for fattened Ruffs; and he never remembered the price under thirty shillings, when fit for table.

Mr. Towns, the noted feeder at Spalding, assured us his family had been a hundred years in the trade, and boasted that they had served George the Second, and many noble families in the kingdom. He undertook, at the desire of the late Marquis of Townsend, when that nobleman was Lord Lieutenant of Ireland, to take some Ruffs to that country; and actually set off with twenty-seven dozen, from Lincolnshire; left seven dozen at the Duke of Devonshire's, at Chatsworth; continued his route across the kingdom, to Holyhead; and delivered seventeen dozen alive in Dublin; having lost only three dozen in so long a journey, confined and greatly crowded as they were in baskets, which were carried upon two horses.

Nothing can more strongly evince the hardy constitution of these birds, than the performance of such a journey, so soon after capture, and necessarily fed with a food wholly new to them; and yet a certain degree of care and attention is requisite to preserve, and more especially to fatten them; for out of the seventeen dozen delivered at the castle of Dublin, not more than two dozen were served up to table, doubtless entirely owing to a want of knowledge, or attention of the feeder, under whose care they had been placed.

The manner of taking these birds is somewhat different in the two seasons; in the spring, the Ruffs *hill*, as it is termed; that is, they assemble upon a rising spot of ground, contiguous to where the Reeves propose to deposit their eggs; there they take their stand, at a small distance from each other, and contend for the females; the nature of polygamous birds. This hill, or place of resort for love and battle, is sought for by the fowler, who, from habit, discovers it by the birds having trodden the turf somewhat bare, though not in a circle as usually described.

When a hill has been discovered, the fowler repairs to the spot before the break of day, spreads his net, places his decoy birds, and takes his stand at the distance of about 140 yards, or more, according to the shyness of the birds.

The net is what is termed a single clap-net, about seventeen feet in length, and six wide, with a pole at each end; this, by means of uprights fixed in the ground, and each furnished with a pulley, is easily pulled over the birds within reach, and rarely fails taking all within its grasp; but in order to give the pull the greatest velocity, the net is (if circumstances will permit) placed so as to fold over with the wind: however, there are some fowlers, who prefer pulling it against the wind for plovers. As the Ruffs feed chiefly by night, they repair to their frequented hill at the dawn of day, nearly all at the same time, and the fowler makes his first pull according to circumstances, takes out his birds, and prepares for the stragglers who traverse the fens, and who have no adopted hill; these are caught singly, being enticed by the stuffed birds.

Burton, who was before mentioned, never used any thing but stuffed skins, executed in a very rude manner; but some fowlers keep the first Ruffs they catch for decoy birds; these have a string of about two feet long tied above the knee, and fastened down to the ground. The stuffed skins are sometimes so managed as to be moveable by means of a long string, so that a jerk represents a jump, (a motion very common amongst Ruffs, who at the sight of a wanderer flying by, will leap or flirt a yard

off the ground) by that means inducing those on wing to come and alight by him.

The stuffed birds are prepared by filling the skin with a whisp of straw tied together, the legs having been first cut off, and the skin afterwards sewed along the breast and belly, but with no great attention to cover the straw beneath: into this straw a stick is thrust, to fix it into the ground, and a peg is also thrust through the top of the head, and down the neck into the stuffing or straw body, and the wings are closed by the same process. Rough as this preparation is, and as unlike a living bird as skin and feathers can be made, it answers all the purpose.

When the Reeves begin to lay, both those and the Ruffs are least shy, and so easily caught, that a fowler assured us he could with certainty take every bird on the fen in the season. The females continue this boldness, and their temerity increases as they become broody; on the contrary, we found the males at that time could not be approached within the distance of musket shot, and consequently were far beyond the reach of small shot.

We were astonished to observe the property that these fowlers have acquired, of distinguishing so small an object as a Ruff at such an immense distance, which, amongst a number of tufts or tumps, could not by us be distinguished from one of those inequalities; but their eyes had been in long practice of looking for the one object.

The autumnal catching is usually about Michaelmas, at which time few old males are taken, from which an opinion has been formed that they migrate before the females and young. It is, however, more probable, that the few which are left after the spring fowling, like other polygamous birds, keep in parties separate from the female and her brood till the return of spring. That some old Ruffs are occasionally taken in the autumnal fowling, we have the assertion of experienced fowlers, but we must admit that others declare none are taken at this season. It must, however, be recollected, that in the autumn, the characteristic long feathers have been discharged, and consequently young and old males have equally their plain dress: but the person who assured us that old male birds were sometimes taken at that season, declared it was easy to distinguish them from the young of that summer.

It does not appear to be the opinion of fowlers, that the males are more than one season arriving at maturity, because the Ruffs taken in the spring, destitute of the characteristic long feathers, which constitute their principal distinction, are comparatively few to those possess-

ing the ruff: the opinion, therefore, that those ruffless males are birds of a very late brood of the preceding season, is a reasonable conjecture.

The long feathers on the neck and sides of the head, in the male, that constitute the ruff and auricles, are of short duration, for they are scarcely completed in the month of May, and begin to fall the latter end of June. The change of these singular parts is accompanied by a complete change of plumage; the stronger colours, such as purple, chestnut, and some others, vanish at the same time, so that in their winter dress they become more generally alike from being less varied in plumage; but we observed that those who had the ruff more or less white, retained that colour about the neck after the summer or autumnal moulting was effected.

The females, or Reeves, begin laying their eggs the first or second week in May; and we have found their nests with young as early as the third of June. By this time the males cease to hill.

The nest is usually formed upon a tump in the most swampy places, surrounded by coarse grass, of which it is also formed.

The eggs are (as usual with its congeners) four in number; these are so nearly similar in colour to those of the snipe and redshank, both of which breed in the same wet places, and make similar nests, that some experience is required to discriminate them; they are, however, superior in size to the former, and are known from the latter by the ground being of a greenish hue instead of rufous white; but individuals assimilate so nearly to each other, as not to be distinguished, especially as the dusky and brown spots and blotches are similar. The weight of the eggs is from five drams twenty grains, to five drams fifty grains.*

RUNNER.—A name for the Water-rail.

Sanderling.

SANDERLING (*Tringa arenaria*, Illiger.)

Charadrius calidris, *Linn.* Syst. 1. p. 255. 9.—*Gmel.* Syst. 2. p. 689.—*Lath.* Ind. Orn. 2. p. 741. 4.—*Wils.* Amer. Orn. 7. p. 68.—Tringa arenaria, *Linn.* Syst. 1. p. 251. 16.—*Raii*, Syn. p. 109. A. 11.—*Will.* p. 125.—*Gmel.* Syst. 2. p. 680. Arenaria Calidris, *Meyer*, Orn. 2. p. 326.—Calidris grisea minor, *Briss.* 5. p. 236. 17. t. 20. f. 2.—*Ib.* 8vo. 2. p. 272.—Calidris grisea, *Briss.*—*Gmel.* Syst. 1. p. 688.—*Wils.* Amer. Orn. 7. p. 129.—*Penn.* Arct. Zool. 2. p. 480.—*Temm.* Man. d'Orn. 2. p. 522.—Le Sanderling, *Buff.* Ois. 7. p. 532.—Sanderling, or Curwillet, Br. Zool. 2. No. 212. t. 73.—*Ib.* fol. 129.—Arct. Zool. 2. No. 403.—*Will.* (Angl.) p. 303.—*Albin*, 2. t. 74.—*Lewin's* Br. Birds, 5. t. 183.—*Lath.* Syn. 5. p. 197.—Supp. p. 253.—*Walc.* Syn. 2. t. 160.—*Pult.* Cat. Dorset, p. 16.—*Bewick's* Br. Birds, 1. p. 375.—*Flem.* Br. Anim. p. 112.—Linn. Trans. 8. p. 268.

A small species; weight about two ounces; length eight inches; bill black, one inch in length; irides dusky; fore part of the head and sides beneath the eyes, as well as the whole under parts from chin to vent, white; crown of the head, back of the neck, and scapulars, grey, with slight dusky streaks down the shafts of each feather; wing coverts the same colour, but nearly plain; greater quills dusky; secondaries grey, tipped with white; tail grey, the exterior feathers lightest; legs black. This is the general winter plumage.

Of some specimens in our collection, which were killed on the coast of Cornwall in the latter end of July and in August, one has the head, neck, and sides of the breast, streaked with black, and tinged with ferruginous; back and scapulars marked with large spots of black, and

some of the feathers edged with light ferruginous. In another, the head and neck are dark ash-colour; back and scapulars grey, distinctly and prettily marked with large angular spots of black. These seem to be young birds, of that season, in their gradation of plumage. In some the wing coverts are dark brown; others ash-colour, with more or less dusky streaks; and all the inner webs of the quills, and part of the outer webs of the secondaries, white; and the middle feathers of the tail dusky.

Whether this bird breeds with us is not yet thoroughly known. We have seen them on many parts of the coast in the month of April, and in July, but never in the intermediate months. Mr. Boys, of Sandwich, informs us he thinks they breed on that coast, as well as the dunlin; and we received several eggs from that gentleman found on that sandy shore, which are unknown to us, and may possibly belong to one of these two birds. They are not much unlike that of the black tern, but smaller.

The Sanderling is found on many of our shores, where it flocks together with the dunlin, but is not so plentiful a species; and both are indiscriminately called oxbird by some persons. This is also called curwillet and towwilly. It is said to be found in New South Wales, where it is called, by the natives, madderque. Mr. Simmonds remarks, in the Linn. Trans. 8, p. 268, that he saw this species on the 2nd of June, at the Mull of Cantyre.

SAND LARK.—A name for the Ringed Plover, and the Sandpiper.

SAND MARTIN.—A name for the Bank Swallow.

SANDPIPER (*Tringa*, Brisson.)—*A genus of Waders (*Grallatores*, Illiger.) There is a close resemblance between this genus and that of the snipe and plover. In the former, the length of the bill in that genus, and in the latter the want of a back toe, are the only characteristic marks of distinction; and these, in some species, run so nearly into one another as scarcely to be divided. In the young of the redshank, the bill scarcely exceeds an inch and a half in length and in the grey sandpiper there is no back toe, but only a sort of spur, very small.*

SANDPIPER (*Totanus hypoleucus*, Temminck.)

Tringa hypoleucus, *Linn.* Syst. 1. p. 250. 14.—*Gmel.* Syst. 2. p. 678.—*Lath.* Ind. Orn. 2. p. 734. 28.—Tringa minor, *Raii*, Syn. p. 108. A. 6.—*Will.* p. 223. t. 55.—Totanus hypoleucus, *Temm.* Man. d'Orn. 2. p. 657.—*Flem.* Br. Anim. p. 104.—Guinetta, *Briss.* 5. p. 183. 2. t. 16. f. 2.—*Ib.* 8vo. 2. p. 260.—La Guignette, *Buff.* Ois. 7. p. 540.—Common Sandpiper, Br. Zool. 2. No. 204. t. 17.—*Ib.* fol. 125.—Arct. Zool. 2. No. 388. 23.—*Will.* (Angl.) p. 301. t. 55.—*Lath.* Syn. 5. p. 178. 23.—*Lewin's* Br. Birds, 5. t. 172.—*Walc.* Syn. 2. t. 148.—*Pult.* Cat. Dorset. p. 15.

Provincial.—Killileepie. Sand Lavrock. Sand Lark.

The weight of this species is about two ounces; length seven inches and a half; irides dusky; the bill is brown, an inch and a quarter long, and slender; the head, back of the neck, and whole upper parts, as well as the sides of the breast, light brown, of a glossy greenish hue on the back and scapulars, streaked down the shaft of each feather with a narrow dusky line; the wing coverts with minute undulated lines; the cheeks and throat of a light colour; over the eye a whitish streak; breast and belly white; thighs brown; quills brown, with a white spot on their inner webs, except the first; the four middle feathers of the tail like the back, with fine transverse lines of dusky, outer one white, with brown bars, the intermediate ones either tipped or spotted white on their margins; legs brown. The Sandpiper visits this country in the spring, and chiefly frequents our lakes and rivers, on the borders of which it makes a nest, composed of moss and dry leaves, which is most commonly placed in a hole in the bank. It lays four or five eggs of a dirty white, marked with dusky and cinereous spots, most at the larger end. When disturbed, it makes a piping noise as it flies; and when running on the ground, the tail is constantly in motion. Great numbers breed on the banks of the lakes in Scotland. In the autumn these birds are very much infested with a bird fly (*Hippobosca Hirundinis.*) It is probable many of the Sandpipers are capable of swimming, if by accident they wade out of their depth. Having shot and winged one of this species as it was flying across a piece of water, it fell, and floated towards the verge; and, as we reached to take it up, the bird instantly dived, and we never saw it rise again to the surface; possibly it got entangled in the weeds and was drowned. Other species we have known which, when wounded and having fallen into the water, make way on the surface with their legs, and do not drown like land birds in general. It is known in some places by the name of summer snipe. It is found in most parts of Europe, even as far north as Siberia.

SANDWICH TERN (*Sterna Boysii*, Latham.)

Sterna Boysii, *Lath.* Ind. Orn. 2. p. 806. 10.—Sterna cantiaca, *Gmel.* Syst. 1. p. 606. 15.—*Temm.* Man. d'Orn. 2. p. 735.—Sterna Africana, *Lath.* Ind. Orn. 2. p. 805. 5.—Sterna striata, *Ib.* 2. 807. 11.—Sandwich Tern, *Ib.* Syn. 6. p. 356. —*Mont.* Orn. Dict. and Supp.—*Flem.* Br. Anim. p. 142.—*Bewick's* Br. Birds, 2. p. 204.—*Boys'* Sandwich, p. 851.

This is the largest of the British species. Length about eighteen inches; the bill is black; irides dusky; the upper part of the head and nape, taking in the eyes, is black; the rest of the head, neck, under parts of the body, and tail, white; back, scapulars, and wings, cinereous grey; the first five or six prime quills are hoary black on the outer

webs, and more than half of the inner near the shafts from the points, but gradually becoming less towards the base; the shafts and interior margin quite white to the tip. In winter the black on the head either disappears or becomes mottled with white; the tail considerably forked; the outer feathers dashed with cinereous on the exterior webs; legs dusky, with a tinge of red.

Young birds, not maturely feathered, are more or less clouded with brown on the upper parts of the body and wings, and the head spotted with white. *"In the month of August," says Temminck, "the young begin to moult; then the feathers of a bluish ash-colour, without any spot, begin to be speckled and bordered with brown; the feathers of the tail become whitish grey with the first spring moult, and perfectly white with the second autumnal moulting; the bill becomes of a deep black, the point being yellowish."*

This bird was first noticed by Mr. Boys, of Sandwich, where it is not uncommon, and communicated to Dr. Latham, who first gave it to the world. It does not appear to be so plentiful as either of the other species; for in a whole summer's residence on the coast of Sussex and Kent, where the others are in plenty, we were not able to procure more than two specimens; nor could we ever find where it bred. It comes to us and retires about the same time as the others, and has no doubt been confounded for the common tern, to which it bears very great resemblance, except in size and in the colour of the bill and legs; the bill of this is also much stronger, the legs much longer, and the tail not so much forked. It has, however, all the manners and habits of the common species, as far as we have been able to collect. We are informed that it breeds on the Sandwich coast, but have never, with certainty, heard of its eggs being found. We were favoured with an egg, said to belong to this bird, from Mr. Lewin, and have seen another from the same gentleman, in the cabinet of Dr. Latham; both of which appear in size and colour to be that of the common tern.

SARCELLE (*Clangula glacialis*, Fleming.)

Anas glacialis, *Linn.* Syst. 1. p. 203. 30.—*Gmel.* Syst. 2. p. 529.—*Lath.* Ind. Orn. 2. p. 864. 82.—*Temm.* Man. d'Orn. 2. p. 860.—Anas hyemalis, *Linn.* Syst. 1. p. 202. 29.—Anas caudacuta harilda, *Raii*, Syn. P. 145. 14.—*Will.* p. 290.—Anas longicauda islandica, *Briss.* 6. p. 379. 17.—*Ib.* 8vo. 2. p. 460.—Querquedula ferroensis, *Briss.* 6. p. 466. 40. f. 2.—*Ib.* 8vo. 2. p. 482.—Clangula glaciales, *Flem.* Br. Anim. p. 129.—Canard à longue queue, *Buff.* Ois. 9. p. 202.—Sarcelle de Feræe, *Ib.* 9. p. 278.—Swallow-tailed Shieldrake, *Will.* (Angl.) p. 364.—Longtailed Duck, Br. Zool. 2. No. 283.—*Ib.* fol. 156. t. Q. 7.—Arct. Zool. 2. No. 501.—*Ib.* Supp. p. 76.—*Edw.* T. 280. and t. 156.—*Lath.* Syn. 6. p. 528. 73.—*Pult.* Cat. Dorset. p. 20.—*Walc.* Syn. 1. t. 73.—*Lewin's* Br. Birds, 7. t. 262.—*Don.* Br. Birds, 5. t. 3.—*Wils.* Amer. Orn. 4. p. 93.

Provincial.—Calloo. Sharptailed Duck. Coal and Candle Light.

This species is about the size of a wigeon, length twenty-two inches, including the long feathers of the tail; the bill is black; down the middle and across the tip orange; irides red; the fore part and sides of the head are reddish grey; on each side of the neck, just below the head, is an oval black spot; the hind part of the head, the throat, and remaining part of the neck and breast, white; back and rump black; sides of the upper tail coverts white, the middle black; the lower belly and vent white; the scapulars white, long, and pointed; the wings chiefly black, with a mixture of chestnut; the four middle tail feathers are black, the others white; the two middle ones are narrow, and exceed the others three inches and a half; legs of a dull red; claws black.

Such is the description of the male; but in some the black parts are more or less of a chocolate colour, and the spot on the neck occupies half of it; the length of the tail also varies.

The female has been described by some authors for a different species. The bill, however, which is the same in this sex, seems to be an unerring guide. The sides of the head are white, behind cinereous; the rest of the head, the neck, breast, and back, dusky black; the lower part of the breast and scapulars chestnut; belly white; upper tail coverts and wings like the male; legs dusky reddish-brown. This sex is also subject to some variation; most commonly the middle tail-feathers are not much longer than the rest. It is rarely met with in England, but is frequent in the north of Scotland and the Orkneys in winter, where they assemble in large flocks; it is common in Sweden, Lapland, and Russia, and is said to breed in Greenland and at Hudson's Bay, where it makes a nest of grass near the sea, and lays ten or more bluish-white eggs. The down of this bird is said to be as valuable as that of the eider duck.

* The trachea of this species is of a very singular structure; it rather increases in size at each extremity; at the lower end close to the labyrinthic part, one side is flattened, and instead of the bony rings continuing round of their full breadth, this part is crossed with four distant linear bones as fine as a thread, which support a delicate transparent membrane three quarters of an inch in length, and almost three-eighths of an inch broad at the base: below this ribbed membrane projects the bony part of the labyrinth, with a tympanum of a kidney shape, placed transverse to the trachea, the middle of which is flat and membranaceous, but more opaque than is usual; the opposite side of the labyrinth is depressed; from the bottom of this part the two *bronchæ* originate.*

SCALE DRAKE.—A name for the Sheldrake.

SCANSORES (Auctores).—A family of climbing birds.

SCAPULARS.—*Those feathers which arise from the shoulders and cover the sides of the back.*

SCARF and SCART.—Names for the Shag and the Cormorant.

SCAURIE.—A name for the Herring Gull.

SCAUP DUCK (*Nyroca marila*, FLEMING.)

Anas Marila, *Linn.* Syst. 1. p. 196. 8.—*Gmel.* Syst. 2. p. 509.—*Lath.* Ind. Orn. 2. p. 853. 54.—*Temm.* Man. d'Orn. 2. p. 865.—Glaucium minus striatum, *Briss.* 6. p. 416. 26. A.—*Ib.* 8vo. 2. p. 470.—Fuligula Gesneri, *Raii*, Syn. p. 142. A. 6.—*Will.* p. 279.—Anas frænata, *Sparmann* mus carls. 2. p. 38. female. Scaup Duck, Br. Zool. 2. No. 275. t. 100.—*Ib.* fol. p. 153. t. Q.—Arct. Zool. 2. No. 498.—*Lath.* Syn. 6. p. 500. 49.—*Pult.* Cat. Dorset. p. 20.—*Walc.* Syn. 1. t. 60.—*Lewin's* Br. Birds, 7. t. 250.—*Wils.* Amer. Orn. 8. pl. 69. 3.—*Flem.* Br. Anim. p. 122.—Linn. Trans. 4. p. 128. pl. 14. (Trachea.)

Provincial.—Spoonbill Duck.

The length of this species is about twenty-one inches; weight sometimes as much as thirty-five ounces; the bill is broad, and not so much compressed as usual in this genus; colour bluish-lead; nail black; irides light gold-colour; the head and upper part of the neck black, glossed with green, and, from being well clothed with feathers, appears large; the lower part of the neck and breast black; back and scapulars pale grey, undulated with innumerable small transverse lines of black; the wing coverts the same, but minutely small; lower part of the back, rump, and vent, black; the primores are dusky, lightest on their inner webs, and black at the ends; the secondary quills, except a few next the body, are white tipped with black, forming a broad bar of white across the wing; the under part of the body is white, sprinkled between the thighs with dusky; the tail is composed of dusky-black feathers; legs lead-colour. In some we have seen, the white in the wing is edged with rust-colour: it is also subject to other varieties.

The Scaup Duck is not uncommon in most parts of this kingdom in winter, and is frequently found in fresh waters. It is supposed to take its name from feeding on broken shells called scaup. This, like most of the genus, breeds in the more northern parts; is common in Russia, Sweden, Norway, and Lapland; and is found at Hudson's Bay in the warmer months.

* The male and female make the same grunting noise, and both have the same singular toss of the head, with an opening of the bill, while sporting on the water in spring. This peculiar gesture would be sufficient to identify the species, were all other distinctions wanting.

During the summer months, when the *larvæ* of various insects are to be found in the mud at the bottom of the pond, these birds are continually diving; but they are perfectly contented with barley, and become so tame as to come to the edge of the water for a bit of bread.

Of all the aquatic birds we have had, that have been taken alive from their natural wild habits, none have appeared so familiar as the Scaup; after feeding a few days with bread soaked in water, they will take to eating barley freely. This species is never taken in a decoy, and rarely observed upon fresh water, except where large rivers disembogue into the sea; or in lakes close to the sea.

The manner in which our specimens were taken, was quite accidental. On some parts of our flat coast, where the tide recedes for a considerable distance, the fishermen place their nets in a semicircular form at low water, so that on the return of the water at the next ebb, all the fishes within the vortex of the net are cut off, and with them sometimes a Scaup, or a scoter. These birds finding some resistance, attempt to avoid the obstacle by diving, and by such continued efforts are at last incapable of flying, and easily taken alive, unless they get entangled in the net under water, and are drowned, which sometimes happens.

In point of size the female is not much inferior to the male. The weight of the one under examination is twenty-one ounces; length eighteen inches and a half. The bill, like that of the male, is very broad, a trifle dilated at the end, and, from being considerably compressed, appears to reflect a little, and is of a dusky lead-colour, punctured round the nail, which last is black; irides bright yellow; the head is large and well clothed with chocolate-brown feathers, those on the crown longest; round the base of the bill is a band of yellowish-white, occupying the space of half an inch next to the upper mandible, decreasing from thence to the chin; the neck is brown; breast the same, tinged with tawny; upper part of the back dusky, the ends of the feathers greyish; the lower back, and coverts of the wings, dusky black, tinged with changeable green; scapulars the same, minutely speckled with grey, and mixed with some plain dark brown feathers.*

SCLAVONIAN GREBE.—A name for the Horned Grebe.

SCOLOPACIDÆ (Vigors.)—* Snipes, a family of Waders.*

SCOLOPAX (Illiger.)—* Snipe, a genus thus characterised. Bill long, straight, compressed, slender, soft, bulged at the point; the two mandibles furrowed about the half of their length; the point of the upper mandible longer than the under, the bulged part forming a hook; ridge elevated at its base and salliant; nostrils, at the sides of the base, slit lengthwise, near the edges of the mandible, covered by a membrane; legs of mean length, slender, the naked space above the knee very small; three toes before entirely divided, the middle and the outer ones rarely united; one toe behind; wings of mean length, the

first quill of equal length, or a little shorter than the second, which is the longest in the wing.*

SCOOPER.—A name for the Avoset.

SCOPS EARED OWL.—A name for the Little Horned Owl.

SCOTER (*Oidemia nigra*, Fleming.)

Anas nigra, *Linn.* Syst. 1. p. 196. 7.—*Gmel.* Syst. 2. p. 508.—*Lath.* Ind. Orn. 2. p. 848. 43.—*Briss.* 6. p. 420. 28. t. 38. f. 2.—*Ib.* 8vo. 2. p. 471.—*Temm.* Man. d'Orn. 2. p. 853.—*Wils.* Amer. Orn. 8. p. 135. 92.—Anas niger minor, *Raii*, Syn. p. 141. A. 5.—*Will.* p. 280. t. 74.—Anas cinerea, *Gmel.* Syst. 2. p. 184. 18.—Oidemia nigra, *Flem.* Br. Anim. p. 119.—La Macreuse, *Buff.* Ois. 9. p. 234. t. 16.—Scoter, or Black Diver, Br. Zool. 2. No. 273.—*Ib.* fol. 253.—Arct. Zool. 2. No. 484.—*Ib.* Supp. p. 76.—*Will.* (Angl.) p. 366. t. 74.—*Lath.* Syn. 6. p. 480. 36.—*Lewin's* Br. Birds, 7. t. 249.—*Walc.* Syn. 1. t. 59.

Provincial.—Black Duck. Black Diver.

This species weighs about three pounds; length twenty-one inches; the base of the bill is furnished with a knob, which, with the bill, is black, divided down the middle with a line of orange, which spreads over half the bill after quitting the knob, but does not reach the tip by half an inch; darkest on the knob; irides dusky; eyelids yellow; the plumage is wholly black, glossy about the head and neck; the legs and feet dusky; the tail is cuneiform, and consists of sixteen pointed feathers; feet long and broad. It is said the knob is in some of a red colour, in others green.

The female has no knob at the base of the bill; the plumage more dull, with sometimes a mixture of grey on the chin and breast; both sexes want the nail at the end of the bill, usual in this genus.

These birds are great divers, and mostly reside at sea, distant from shore; they are only seen with us in the winter season, at which time they are plentiful on some parts of the coast of France, where they are taken by nets as they are diving after shell-fish, which seems to be their prinpal food. We received two taken by accident in the same manner off the coast of South Wales. It is never observed to visit our rivers or fresh-water lakes, but is found in great plenty in most of the northern parts of the world, and particularly in the great lakes and rivers of Siberia, where it probably breeds.

SCOUT.—A name for the Willock.

SCRABER.—A name for the Guillemot.

SCREECH.—A name for the Missel Thrush.

SCREECH MARTIN.—A name for the Swift.

SCREECH OWL.—A name for the Barn Owl and the Tawny Owl.

SEA CROW.—A name for the Cormorant.

SEA DOTTEREL.—A name for the Turnstone.

SEA HEN.—A name for the Willock.

SEA LARK.—A name for the Rock Lark.

SEA MALL.—A name for the Gull.

SEA MEW.—A name for the Gull.

SEA PARROT.—A name for the Coulterneb.

SEA PHEASANT.—A name for the Pintail Duck.

SEA PIE.—A name for the Oyster Catcher.

SEA SANDPIPER.—A name for the Purple Sandpiper.

SEA SWALLOW.—A name for the Tern.

SEA TURTLE.—A name for the Guillemot.

SECONDARIES.—*The quill feathers arising from the second joint of the wing.*

SEDGE BIRD (*Curruca salicaria*, Fleming.)

* Sylvia Phragmitis, *Bechst.* Naturg. Deut. 3. p. 633.—*Ib.* Tasschenb. Deut. p. 186. sp. 20.—Sylvia salicaria, *Lath.* Ind. Orn. 2. p. 516. sp. 26.—Curruca arundinacia, *Briss.* 3. p. 378. 5.—Curruca salicaria, *Flem.* Br. Anim. p. 69.—Avis consimilis staparolæ, *Raii*, Syn. p. 81. 6.—*Will.* p. 153.—Bec-fin Phragmite, *Temm.* Man. d'Orn. 1. p. 189.—Schilfsanger, *Meyer*, Tasschenb. Deut. 1. p. 234.—Enkel Karakiet, *Sepp.* Nederl. Vög. 2. t. 53. p. 98.—Sedge Warbler, Arct. Zool. 2. No. 419.—*White's* Hist. Selb. p. 67. 71. 74.—*Lath.* Syn. 4. p. 430. 21.—*Ib.* Supp. p. 180.—*Mont.* Orn. Dict.—*Ib.* Supp.—*Lewin's* Br. Birds, 3. t. 105.—*Walc.* Syn. 2. t. 236.—*Pult.* Cat. Dorset. p. 9.—*Don.* Br. Birds, 2. t. 48.—*Syme*, p. 146.—*Sweet's* Br. Warbler, p. 13.—Willow Lark, or Sedge Bird, Br. Zool. 1. No. 155.—Reed Fauvette, *Bewick's* Br. Birds, 1. t. 223.—*Selby*, pl. 45**. fig. 2. p. 169.

Provincial.—Sedge Wren. Lesser Reed Sparrow.*

The weight of this species is about three drams; length five inches and a half; bill dusky above, whitish beneath; irides hazel; crown of the head and whole upper parts of a yellowish brown, plain on the back and sides of the neck, rump, and upper tail coverts; the rest obscurely marked with dusky; the coverts of the wings more dusky, edged with olivaceous brown; quills the same, but slightly edged; over the eye a whitish stroke; all the under parts, from the chin to the under tail coverts, yellowish white, darkest on the breast and sides; tail like the quills, a little cuneiform, which, when spread, gives it a rounded shape; legs dusky.

The Sedge Bird comes to us about the middle of April, and leaves us again in September. It has a variety of notes, which it delivers in a hurried manner, and which partakes of that of the sky lark and the swallow, as well as the chatter of the house sparrow. It is frequently by the sides of rivers and watery places, where sedge and reeds grow, amongst which it makes a nest composed of a little moss intermixed with dried stalks, lined with dried grass, and occasionally with a few hairs; sometimes it is fastened between two or three reeds: others we have

found in a tuft of rushes on the ground, or very near it, fastened round the bottom of them ; at other times in a low bush, or on the tump of a willow. The eggs are five or six in number, of a light brown-colour, mottled with darker shades of the same ; their weight from twenty-four to twenty-eight grains. The song of this bird has been erroneously given to the reed-sparrow by various authors, whereas that bird has no notes that deserve the name of song ; but as they frequent the same places to breed, and the reed-sparrow is conspicuous on the upper branches, while this little warbler, concealed in the thickest part, is heard aloud, the song has been confounded. It has been justly remarked, that, if it is silent, a stone thrown into the bush will set it singing instantly ; it will also sing of a moon-light night.

The similitude in colour, size, manners, and habits, of this and the reed-warbler, is so great that they have been most times confounded ; but on comparison that bird will be found not to possess the broad white streak over the eye, nor any of the feathers on the back and wing coverts dusky. The nest and eggs are also essentially different, as may be found by comparing the descriptions. This is also a much more plentiful species, at least is not so local ; but is to be met with in most parts of England and Scotland, whereas the other is confined to certain tracts, especially to such where quantities of reeds grow. They are, however, frequently found together, for wherever the reed-warbler is, the Sedge Bird also inhabits ; but the reverse is not the case.

*"We have frequently," says Syme, "heard and seen the reed-bunting in low hedges, where we have had their nests, and where we never either heard or saw a sedge-warbler : besides, their notes are very unlike each other. But it is quite correct, that, if it (the sedge-warbler,) is silent, a stone thrown into the bush will set it a-singing instantly.

"It feeds on dragon-flies, may-flies, ephemeræ, and other insects that frequent marshes ; and it is curious to see how quickly it darts from the reeds or willow-roots, catches the fly, and flits back again. This we have often observed. The reed-warbler sings a great deal, both through the day and in the evening, but never in sight of any person, if they are in motion. In order to see the bird, it is necessary to sit or lie down." "It is almost," says Sweet, "continually in song both by night and by day, and may be heard at a considerable distance, generally beginning with '*chit, chit, chiddy, chiddy, chiddy, chit, chit, chit.*' It is a very lively bird, and shows scarcely any symptoms of fear, approaching very near to any person who does not drive or frighten it." *

SEDGE WARBLER.—A name for the Sedge Bird.

SEMI PALMATED.—When the webs reach only half way to the toes.

SERULA.—A name for the Red Merganser.

SHAG (*Phalacrocorax graculus*, CUVIER.)

Pelecanus Graculus, *Linn.* Syst. 1. p. 217. 4.—*Gmel.* Syst. 2. p. 574.—*Lath.* Ind. Orn. 2. p. 887. 15.—Corvus aquaticus minor, *Raii*, Syn. p. 123. A. 4.—*Will.* p. 249. t. 63.—Carbo Graculus, *Meyer*, Tasschenb. Deut. 2. p. 578.—*Temm.* Man. d'Orn. 2. 897.—Phalacrocorax, *Briss.* 6. p. 516. 2.—*Ib.* 8vo. 2. p. 496.—Petit Cormoran, ou Nigaud, *Buff.* Ois. 8. p. 319.—Shag, or Crane, *Will.* (Angl.) p. 330. t. 63.—*Lath.* Syn. 6. p. 598. 14.—*Lewin's* Br. Birds, 7. t. 264.—*Walc.* Syn. 1. t. 93.—*Pult.* Cat. Dorset. p. 21.—*Flem.* Br. Anim. p. 117.

This species is in weight about four pounds; length twenty-nine inches; breadth three feet ten inches; the bill dusky, near four inches long; sides of the mouth and chin bare yellow skin, minutely speckled with black on the latter. The whole bird appears, at a little distance, to be black, but on nearer inspection the head and neck, upper breast and rump, are found to be glossed with green; the feathers are somewhat pointed on the upper part of the back, scapulars, and wing coverts, and beautifully glossed with purple, violet, and green, each feather regularly bordered with velvet-black; the under parts of the body less glossed with green; legs dusky black; middle claw serrated; the feathers next to the bare skin on the chin are usually white.

The female weighs about three pounds and a quarter; length twenty-seven inches; the feathers on the upper parts are not so dark and glossed with the colours of the male; but the margin of the feathers on the scapulars and coverts are black; the under parts are dusky and grey mixed; the legs and toes of a dusky colour, lightest on the fore part; the irides of both sexes green, and the tail is composed of twelve stiff feathers, dusky, dashed with cinereous.

The above description is taken from the birds shot from their nest; but we have seen many others of a lighter colour, both above and below; and some where the belly was of a dirty white, mixed with brownish ash-colour; all of which had twelve feathers in the tail, and their weight did not exceed four pounds two ounces, which is the material distinction between this and the cormorant, which weighs six or seven pounds, and has the tail invariably composed of fourteen feathers. The habits of these two species somewhat differ. This is never known to visit our fresh-water rivers, which the cormorant frequently will, and in some places make their nest in trees, on which they often perch, by the sides of rivers. The Shag keeps solely to the salt-water, and breeds on our rocky coasts, where it makes a nest of sticks and sea-weed, and

lays two or three white eggs of a long oval shape; their weight about an ounce and three quarters. We have counted no less than thirty of these nests on a small rock a little detached from the shore, from which place we took some eggs and young birds.

These birds, by reason of their weight in proportion to their feathers, swim deep in the water, shewing only their head, neck, and back; are expert divers, and devour a prodigious quantity of fish.

Linnæus seems to suspect this bird may prove to be the young of the cormorant; but the reverse is now proved beyond doubt. Mr. Pennant mentions what we consider as a variety with a crest on the back of the head two inches long; in every other respect it exactly corresponds with the above description of the male bird.

SHEARWATER.—A name for the Puffin.

SHELL APPLE.—A name for the Crossbill.

SHELDRAKE (*Tadorna Vulpanser*, Ray.)

Anas Tadorna, *Gmel.* Syst. 2. p. 506.—*Lath.* Ind. Orn. 2. p. 854. 56.—Tadorna Bellonii, Vulpanser quibusdam, *Will.* p. 278.—*Flem.* Br. Anim. p. 122.—Tudorne, *Buff.* Ois. 9. p. 205. 14.—Canard Tudorne, *Temm.* Man. d'Orn. 2. p. 833.—Shieldrake, *Penn.* Br. Zool. 2. p. 278.—*Mont.* Orn. Dict.—*Don.* Br. Birds, t. 71.—*Haye's*, Br. Birds, t. 28.—*Lewin's* Br. Birds, 7. p. 248.—*Lath.* Syn. 6. p. 504. 51.—*Bewick's* Br. Birds, 2. p. 341.—Linn. Trans. 4. 117. 15. (Trachea.)

Provincial.—Bargander. St. George's Duck. Burrow Duck. Pirennet. Sly Goose. Skeel Duck. Skeeling Goose.

This elegant species weighs about two pounds and a half or rather more; length two feet three inches; the bill is red and turns upwards, furnished with a small knob at the base; the nail at the tip black, irides dusky; the head and part of the neck greenish-black; the rest of the neck, back, rump, and upper tail coverts, white; on the breast is a broad band of a bay-colour, growing narrower as it passes backwards under the wings, and encloses the lower part of the neck behind; through the middle of this band on the breast runs a black list, which spreads very broad at and near the vent; the scapulars black; coverts of the wings white, except some of the outer ones, which are black; the greater quills black; the four next the body bay on their exterior webs; the ten next glossy-green, tinged with copper, forming a speculum on the wing; the under coverts of the tail ferruginous; the tail consists of fourteen white feathers, tipped with black; legs reddish flesh-colour. Both sexes are nearly alike.

The Sheldrake is not uncommon on many parts of our coast, and remains with us all the year. The female makes choice of a rabbit-burrow to deposit her eggs in, which are numerous, sometimes as many

as sixteen, and which she covers with down from her own body. The nest is generally near the water, where she leads her young soon after they are hatched. It is rarely met with remote from salt water; but if the eggs are taken and hatched under a hen, the young become tame, and may be kept in ponds; but it seldom breeds in confinement. A nobleman informed me he had one instance only in several years, although they had the range of a very extensive canal. The female brought out nine young ones. The eggs are white, about the size of those of a common duck.

It is very tenacious of its young, and it is said will carry them from place to place in its bill; indeed it is probable when the young are hatched high above the water, the parent birds must carry them down. Their principal food is sea-weed, small shell-fish, and marine insects.

SHEPSTER.—A name for the Starling.

SHILFA.—A name for the Chaffinch.

SHORE BIRD.—A name for the Bank Swallow.

SHORT EARED or HORN OWL.—A name for the Hawk Owl.

SHOVELER (*Spathulea clypeata*, FLEMING.)

Anas clypeata, *Linn.* Syst. 1. p. 200. 19.—*Gmel.* Syst. 2. p. 518.—*Lath.* Ind. Orn. 2. p. 856. 60.—*Briss.* 6. p. 329. 6. t. 32. f. 1.—*Ib.* 8vo. 2. p. 450.—*Lath.* Syn. Supp. 2. p. 353.—Linn. Trans. 4. p. 109. t. 13. f. 4. 5. (Trachea.)—*Bewick's* Br. Birds, 2. t. p. 345.—*Temm.* Man. d'Orn. 2. p. 842.—Anas muscaria, *Linn.* Syst. 1. p. 200. B.—*Raii*, Syn. p. 146.—*Will.* p. 287.—Anas clypeata ventre candido, *Briss.* 6. p. 337. A.—*Ib.* 8vo. 2. p. 451.—Tempatlahoac, *Raii*, Syn. p. 176.—*Will.* p. 299.—*Ib.* (Angl.) p. 387.—*Lath.* Syn. 6. p. 511. A. B.—Shoveler, *Flem.* Br. Anim. p. 123.

YOUNG.

Anas rubens, *Gmel.* Syst. 1. p. 519.—*Lath.* Ind. Orn. 2. p. 857.—Redbreasted Shoveler, Br. Zool. 2. No. 281.—*Lath.* Syn. 6. p. 512.—*Mont.* Orn. Dict.—Barbary Shoveler, *Shaw's* Trav. p. 254?—Anas Platyrynchos, *Raii*, Syn. p. 144. 13. (fem.)—*Will.* p. 283. 15.—*Ib.* 284. 16. (fem.)—Anas Platyrynchus altera, *Raii*, Syn. p. 143. A. 9. (mas.)—*Will.* p. 283. (mas.)—Souchet, *Buff.* Ois. 9. p. 91.—Shoveler, Br. Zool. No. 280.—*Ib.* fol. 155. t. Q. 4.—Arct. Zool. 2. No. 485.—*Will.* (Angl.) p. 370. 15. (mas.) 371. 16. 17. (fem.)—*Albin*, 1. t. 97. 98.—*Haye's* Br. Birds, t. 27. (mas.)—*Lath.* Syn. 6. p. 509. 55.—Ost. Men. p. 52. t. (mas.)—*Lewin's* Br. Birds, 7. t. 252.—*Walc.* Syn. 1. t. 67.—*Pult.* Cat. Dorset. p. 21.

Provincial.—Blue-winged Shoveler.

Length twenty-one inches; weight twenty-two ounces; the bill is black, near three inches in length, spreading near the end to a great breadth; the edges much pectinated; irides yellow; the head and upper part of the neck glossy-green, changeable to blue or violet; the lower part of the neck, breast, and scapulars, white, the two first sometimes spotted; back brown; belly chestnut; vent black; the wing coverts pale blue; the greater brown, tipped with white; the greater quills are brown; the secondaries are of a glossy-green on the outer webs; the

tail consists of fourteen dusky feathers edged with white, the outer ones wholly white; legs orange-red.

The female a good deal resembles the common duck. In the wing the markings are like the male, except in the first year, but not so bright. Both sexes are apt to vary much in colour. The Shoveler is sometimes met with in England, but by no means common. It is said that some remain in France during the breeding season; that they make a nest of rushes, in which they lay ten or twelve rufous-coloured eggs. It is found in Germany, Russia, and America.

*The labyrinth of the trachea, belonging to the blue-winged Shoveler, is a very small, roundish, bony arch, well explained in the Linnæan Transactions, referred to in the synonimes. The very great difference in the size and weight, as well as in the plumage of this species, have long made us suspect that one of the changes incident to it, might turn out to be the red-breasted Shoveler.

Our great attention to the change of plumage in all the duck tribe we have been able to procure alive, has been the means of much knowledge on this important subject, not a little aided by strict attention to dead specimens, killed in different seasons of the year. From all these observations collectively, we have no doubt remaining, but that the red-breasted Shoveler is no other than this bird in one of its accustomed changes, either intermediate between the young and the adult, or the annual change of the adult, similar to what we have related of the pintail: but before we proceed to describe the bird in this probable annual change, we shall describe one somewhat varying from the individual described above. A pair of these, male and female, taken together in a decoy in Lincolnshire, about the middle of April, were sent to us by Mr. Wright, of Wainfleet. These appeared so much smaller than any before examined, that for some time we could hardly persuade ourselves that they were not a distinct species. The male was fat, and yet weighed only seventeen ounces: the female was rather poor, and weighed no more than ten ounces and a half, which is less than that of a teal. There was nothing material, however, in the plumage, to favour an opinion that these could be distinct from the common Shoveler, and the trachea of the male at once evinced them to be such. In this bird, the head, neck, breast, and belly, were the same as formerly described: the back dusky-black, reaching up to the green on the neck in a peak; these feathers are slightly edged with cinereous; the rump, upper tail coverts, and from the vent to the tail, black, glossed with green; those that cover the sides of the tail, fine deep green; the

lesser wing coverts and scapulars the same as before described; as also the quill-feathers, but tinged with blue on the outer webs of the primaries; the tertials next to the body are very broad at the base, and gradually narrower to a pointed tip; these are of a glossy purple-black, with a white stripe in two of them along the shaft, for one third of their length from the tip; one or two of the longest scapular feathers that fall over these, are similar; on each side of the base of the tail is a large patch of white; the tail consists of fourteen feathers, the middle ones dusky-black, with white margins, but the two centre have the margins minutely speckled; the rest are dusky-brown, with broader margins of dirty white; bill, irides, and legs, like the former. *

SHRIKE.—A name for the Butcher Bird and Flusher.

SILVERY GULL (*Larus argentatus*, BRUNNICH.)

Larus argentatus, *Gmel.* Syst. 2. p. 600. sp. 18.—Silver Gull, Arct. Zool. 2. p. 533. C.—*Ib.* Supp. p. 70.—*Lath.* Syn. 6. p. 375. 5.—Less Black-backed Gull, *Mont.* Orn. Dict.—Larus marinus, *Lath.* Ind. Orn. 2. p. 814. 6. var. β.—Herring Gull, *Lath.* Syn. 6. p. 372. 3.—*Flem.* Br. Anim. p. 14.

This species is greatly inferior in size to the Cobb, and rather superior to the herring gull. It weighs about thirty-six ounces, and rarely more; length twenty-four inches; bill yellow, with an orange spot on the lower mandible; size and shape like that of the herring gull; irides pale yellow; orbits red orange; head, neck, tail, and whole under parts pure white; back, scapulars, and wings dusky-black; prime quills dusky; towards their ends black; the point of the first is white, with a black tip; the second the same, with only a white spot in the black; the others very slightly tipped with white; two or three of the scapulars are also tipped with white; legs yellow.

No class of birds has occasioned more perplexity than the gulls, from the length of time most of them are arriving to maturity in plumage: the species have been greatly multiplied. But we shall here again remark, that all the species we are acquainted with are, in their first feathers, mottled all over with brown and white; not to be discriminated but by size. Many of these errors have now been corrected.

This congregates frequently with the herring gull, and breeds in the same places, where we have seen them sitting on their nests; but they are not near so plentiful. On Romsey Island, in Pembrokeshire, this and the herring gulls breed in great abundance; but where we had an opportunity of examining them very attentively, this was not near so plentiful as the other species. The proportion was certainly not more than one in twenty, which must invalidate every idea of its being the male of the other species.

The eggs and young of this bird which we found in the nests, were so like those of the herring gull, that there was no discriminating mark; the eggs, indeed, were in general larger; the young were covered with a soft brown down, mottled with dusky. This is by far a less numerous species than the herring gull.

SISKIN.—A name for the Aberdevine.

SITTA (Linnæus.)—*Nuthatch, a genus thus characterised. Bill straight, cylindrical, slightly compressed, awl-shaped; upper mandible rather longer than the lower one; the tip sharpened; tongue short, horny, and armed at the point; nostrils at the base and rounded, partly hidden by reflected bristles; feet with three toes before and one behind, the outer toe being joined at its base to the middle one; hind toe of the same length as, or longer than, the middle toe, with a long and hooked claw; tail consisting of twelve feathers; wings rather short; the first quill very short, the third and fourth being the longest in the wing.*

SKART.—A name for the Cormorant.

SKEER DEVIL.—*A name for the Swift.*

SKIDDY COCK.—A name for the Bilcock.

SKIR DEVIL.—*A name for the Swift.*

SKITTY (*Gallinula Porzana*, Latham.)

Rallus Porzana, *Linn.* Syst. 1. p. 262. 2.—*Gmel.* Syst. 2. p. 712.—*Lath.* Ind. Orn. 2. 772. 19.—Rallus aquaticus minor, sive Maruetta, *Briss.* 5. p. 155. 2. t. 13. f. 1.—*Ib.* 8vo. 2. p. 252.—Gallinula ochra Gesneri, *Raii*, Syn. p. 115. 7.—*Will.* p. 236.—*Ib.* (Angl.) p. 316.—Petit Rale d'eau, ou le Marouette, *Buff.* Ois. 8. p. 157.—Gallinula Porzana, *Temm.* Man. d'Orn. 2. p. 688.—Spotted Gallinule, Br. Zool. 2. No. 215.—*Ib.* fol. 130. t. L.* 1.—Arct. Zool. Supp. p. 69.—*Lath.* Syn. 5. p. 264. 18.—*Walc.* Syn. 2. t. 172.—*Lewin's* Br. Birds, 5. t. 192.—*Don.* Br. Birds, 5. t. 122.—*Flem.* Br. Anim. p. 99.—*Mont.* Orn. Dict.

Provincial.—Spotted Water Hen.

The weight of this elegant species is about four ounces; length nine inches; the bill is yellowish green; the base red orange; irides reddish hazel; the crown of the head, back, and rump, olive-brown, streaked with dusky; the two last spotted with white; the sides of the head and neck dashed with cinereous, and minutely spotted with white; the breast and wing coverts olive-brown, spotted with white; the larger coverts barred and streaked with white; belly and vent dirty yellowish white; the sides above the thighs, barred with white; legs pale green.

This is rather a scarce bird with us, and is certainly a migrative species. We have met with it as early as the first of April, and as late as the middle of October, about which time it probably retires south to pass the winter. We have received it from Sussex, Hampshire, and Caermarthenshire. It does not appear to be found far inland, but

chiefly resorts to the marshes and borders of small streams well clothed with reeds and rushes, amongst which it is concealed and difficult to be roused. It has all the manners and habits of the common gallinule, or water-hen; is said to make a nest composed of rushes, placed amongst reeds on the surface of the water, and to lay seven or eight white eggs. The young take the water as soon as hatched, and are said to be quite black. It is found in France and Italy in the spring, and is there supposed to be migratory. It is found also in the south of Russia, and the western parts of Siberia. In England it has not been observed farther north than Cumberland.

SKRABE.—A name for the Puffin.

SKUA (*Lestris catarractes*, Temminck.)

Larus catarractes, *Linn.* Syst. 1. p. 226. 11.—*Gmel.* Syst. 2. p. 603.—*Lath.* Ind. Orn. 2. p. 818. 12.—Catarractes et Catarracta, *Raii*, Syn. p. 128. A. 6.—*Ib.* 129. 7.—*Will.* p. 265.—*Ib.* (Angl.) p. 348. 349. t. 67.—*Flem.* ed. Phil. Jour. 1. p. 97. and Br. Anim. p. 137.—Larus fuscus, *Briss.* 6. p. 165. 4.—*Ib.* 8vo. 2. p. 405.—Lestris Catarractes, *Temm.* Man. d'Orn. 2. p. 792.—Le Goéland brun, *Buff.* Ois. 8. p. 408.—Brown Gull, *Albin*, 2. t. 85.—*Bewick's* Br. Birds, 2. p. 233.—Skua Gull, Br. Zool. 2. No. 343.—*Ib.* fol. 140. t. L. 6.—Arct. Zool. 2. No. 531. A.—*Lath.* Syn. 6. p. 385. 14.—*Lewin's* Br. Birds, 6. t. 211.—*Walc.* Syn. 1. t. 117.

Provincial.—Sea Eagle. Bonxie. Port Egmont Hen.

This species is rather superior in size to the raven; weight three pounds; length two feet; the bill is an inch and three quarters long, black, and much hooked at the end; is covered for more than half its length with a kind of black cere; the upper part of the head, neck, back, and wings, deep brown; the feathers margined with ferruginous; about the forehead and chin tinged with ash-colour; the breast and all beneath, pale dusky ferruginous; the quills are brown, white at the base; tail deep brown; roots and shafts white; the legs are black, rough, and scaly; talons black, strong, and much hooked.

This is a bold rapacious bird, and preys on the lesser gulls, as well as fish; is said to attack the eagle, and even man, if he approaches their nest. It breeds in the Orkney islands, and is much esteemed in the Isle of Foulah, from a supposition that it defends the flocks from the eagle: is rarely seen in the south. One in the museum of Dr. Latham, was killed at Greenwich; and *the only other instance we are furnished with, of this species being observed in the south of England, is one that was shot at Sandwich, in Kent, in the winter of 1800, the head and legs of which were sent to us for examination, by Mr. Boys. We are informed by Mr. Fleming, that the Skua breeds in Bonas-hill, and Foulah, in Zetland, and that there is no distinction of plumage in the sexes. The remarkable hooked talons, especially that of the inner

toe, seem to indciate a habit unusual in the gull tribe, which generally swallow their prey whole. It is reasonable, however, to conclude, from the great strength and semicircular shape of the inner claw, that this bird frequently holds its prey under its feet, and tears it in pieces.*

It prefers the colder climates; is common in Norway and Iceland; and also found in the southern hemisphere in several of the higher latitudes; has been met with at Falkland island, and particularly at Port Egmont, where they were called, by our circumnavigators, Port Egmont Hens.

SKY LARK (*Alauda arvensis*, Linnæus.)

*Alauda arvensis, *Linn.* Syst. p. 287. 1.—*Gmel.* Syst. 1. p. 791. sp. 1.—*Lath.* Ind. Orn. 2. p. 491. 1.—Alauda vulgaris, *Raii*, Syn. p. 69. A. 1.—*Will.* p. 149. t. 40.—*Briss.* 3. p. 335. 1.—L'Aloutte ordinaire, *Buff.* Ois. 5. p. 1. t. 1.—*Ib.* pl. Enl. 363. f. 1.—Alouette des champs, *Temm.* Man. d'Orn. 1. p. 281.—Feld Lerche, *Bechst.* Naturg. Deut. 3. p. 755.—*Meyer*, Tasschenb. Deut. 1. p. 260. —*Frisch*, t. 15. f. 1.—Sky Lark, Br. Zool. 1. No. 136.—Arct. Zool. 2. p. 394. A.—*Lewin's* Br. Birds, 3. t. 89.—*Lath.* Syn. 4. p. 368. 1.—*Albin*, 1. t. 41.—*Walc.* Syn. t. 189.—*Pult.* Cat. Dorset. p. 77.—*Low's* Fauna Orcad. p. 65.—*Bewick's* Br. Birds, 1. p. t. 178.—Common Field, or Sky Lark, *Will.* (Angl.) p. 203.—Field Lark, *Flem.* Br. Anim. p. 79.—*Selby*, pl. 50. fig. 1. p. 221.*

Provincial.—Lavrock. Leverock.

The length of this species is seven inches; bill dusky; the base of the upper mandible yellowish; the feathers on the top of the head are dusky, bordered with rufous-brown; they are rather long, and erectable in form of a short crest; the hind part is plain, inclining to ash-colour; on the upper parts of the body the feathers are reddish brown, darker in their middle, their edges pale; the under parts are dirty buff-colour, darkest on the neck and breast, which parts are streaked with dusky; quills brown, lighter on the outer webs and tips; the tail is dusky brown, the two middle feathers darkest, with light rufous margins; the outer feather is white on the outer web and tip of the inner; the second feather white on the outer web only; the third is inclining to white on the margin of the outer web; legs dusky in old birds, but lighter in young; claws dusky; the hind one very long and strait.

This bird is common in the greater parts of this kingdom, but most plentiful in the more open and highest cultivated situations abounding with corn, and rarely seen on the extended moors at a distance from arable land. The nest is placed on the ground, amongst grass or corn; it is formed of dry grass and other vegetable stalks, lined with fine dry grass.

* According to some accounts, it exibits no little skill in the art of mining and draining, under certain circumstances, in the locality chosen for its nest; and though my own observation would lead me to think

that it does nothing more than clear away whatever withered herbage or other rubbish may be lying where the foundation is to be placed, I shall give the statement alluded to, leaving it to the reader to verify it when opportunity offers. "The lark," says Mr. Mudie, "selects her ground with care, avoiding clayey places, unless she can find two clods so placed as that no part of a nest between them would be below the surface. In more friable soils, she scrapes till she has not only formed a little cavity, but loosened the bottom of it to some depth. Over this, the first layers are placed very loosely, so that if any rain should get in at the top, it may sink to the bottom, and there be absorbed by the soil. The edges of the nest are also raised a little above the surface, have a slope outwards, and are, as it were, thatched. The position in which the bird sits is a further security; the head is always turned to the weather; the feathers of the breast and throat completely prevent the rain from entering the nest at that side, while the wings and tail act as pent houses in the other parts; and if the weather is violent, and the rain at a small angle with the horizon, the fore part of the bird upon which the plumage is thickest, receives the whole of it."[1]

I am most ready to admit that all this is very pretty, though I fear it has a little dash of the poetical to set off the facts to advantage. It is more so, indeed, than the professed poetical sketch of Grahame, who, speaking of the Sky Lark, says,—

> "The daisied lea, he loves, where tufts of grass
> Luxuriant crown the ridge; there, with his mate,
> He founds their lowly house, of withered herbs,
> And coarsest spear-grass; next, the inner work,
> With finer, and still finer fibres lays,
> Rounding it curious with his speckled breast."[2]*

The eggs are generally four in number, rather larger than those of a tit lark, weighing above fifty grains, of a dirty white, blotched and spotted with brown. It begins to breed in May, and will lay as late as September, if the first nests are destroyed. The history of this delightful singing bird is so generally known, that to say more of it is useless. It has been asserted that the Sky Lark never perches; but this is a mistake, for we have frequently seen it perch on the top of a bush, and sometimes on the branch of a tree.

*Doctor Latham remarks, that the duty paid at Leipsic for larks, amounts to 12,000 crowns per annum, at a grosch, or two pence half-

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[1] Brit. Naturalist, ii. p. 118.

[2] Birds of Scotland, p. 3. Architecture of Birds. Chap. on Ground-Builders, p. 59.

penny sterling for every sixty larks. The quantity may seem prodigious, but the fields appear to be covered with them from Michaelmas to Martinmas.

These birds are seen in Egypt, about Cairo, in like number, the beginning of September, and continue for some days; they are supposed to come from Barbary, and are called in Egypt Asfour Dsjebali, or Mountain Birds.

Whether any portion of the northern breed of these birds visit us in winter is not certain, but it is obvious that at particular times they are infinitely more abundant in the southern provinces than at others; possibly they only quit one part of the kingdom, and assemble in another, where the climate is more mild. In the winter of 1803, large flocks of these birds were seen in every stubble-field in the south of Devon, in number far beyond any thing that has since appeared.*

SLEEP OF BIRDS.—Like horses and some other quadrupeds, a great number of birds sleep standing; the perchers, (*Insessores*, Vigors,) for example, usually sleep standing on one leg upon some tree, brush, or other elevation, with the head turned behind, and the bill thrust under the feathers on the back, or under the wing. Indeed, these appear to be the general habits of the whole race of birds, in regard to their mode of resting and sleep; for the duck and goose, although they do not perch, will frequently sleep standing on one leg upon the ground, with their heads turned round, and the bills under the wing. Poultry, although they invariably perch, if a perch can be obtained, do not, when sleeping, rest usually on one leg; but they sink down with their bodies upon the perch, having their legs compressed under them. The sky lark sleeps upon the ground with his legs also similarly compressed. It is probable also that all the tribes of birds, even the perchers, occasionally sink down with their bodies resting on the perch during their soundest sleep. What is very remarkable in the structure of their feet and legs is, that the greater the weight upon the muscles, the more firmly the claws grasp whatever they lay hold of; hence the cause that birds do not fall down in sleep, although most of their senses are dormant.

The motion of the branches of trees produced by the wind increases, doubtless, the disposition for sleep in many birds; this may be exemplified in the common fowl; for placing its bill under the wing, even in broad day light, and swaying it to and fro in the hand for a very short time, will produce sleep. Most of the tribe of birds sleep during the night; but there are many exceptions to this. Owls in particular are, during the night, much more active than in the day; their sight,

similar to that of cats, appears to serve them best in the dark. Many of the duck tribe are not only wakeful, but feed during the night; so also do the night-jars. The nightingale, and a few other song-birds, are also wakeful while in song, during, at least, some portion of the night.

SMALL BROWN GULL.—A name for the Tern.

SMALL GREY GOOSE.—A name for the Bean Goose.

SMEW (*Mergus albellus*, Linnæus.)

ADULT MALE.

Mergus albellus, *Gmel.* Syst. 1. p. 547. 5.—*Lath.* Ind. Orn. 2. p. 831. 6.—*Wils.* Amer. Orn. 8. p. 126. pl. 91. 4.—Le Petit Harle Huppè ou la Piette, *Buff.* Ois. 8. p. 275.—*Ib.* Pl. Enl. 449.—Smew, or White Nun, *Lath.* Syn. 6. p. 428.—*Ib.* Supp. 1. p. 271.—*Penn.* Br. Zool. t. No. 1.—Weisser sager, *Bechst.* Naturg. Deut. 4. p. 804.—*Meyer*, Tasschenb. Deut. 2. p. 571.—*Frisch.* Vög. t. 172.—*Naum.* Vög. t. 63. f. 97.—Mergo oco minore, *Stor.* degl. ucc. 5. t. 513.—Witte non druker, *Sepp.* Vög. Neder. 4. t. p. 363.—*Flem.* Br. Anim. p. 129.—*Temm.* Man. d'Orn. 2. p. 888.—*Mont.* Orn. Dict.

FEMALE, AND YOUNG.

Mergus minutus, *Linn.* Syst. 12. p. 209. sp. 6.—Fauna Suec. p. 138.—*Lath.* Ind. Orn. 2. p. 882. sp. 7.—Mergus Asiaticus, *Gmel.* Syst. 2. p. 188. 20.—Mergus Stellatus, *Brun.* Orn. Boreal. No. 98.—*Briss.* Orn. 6. 252.—Mergus Pannonicus, *Scopoli*, 1. No. 92.—La Piette Femelle, *Buff.* Ois. pl. Enl. 430.—Le harle étoilé, *Buff.* Ois. 8. p. 278.—Minute Merganser, *Mont.* Orn. Dict.—*Lath.* Syn. 6. p. 429.—Red-headed Smew, *Penn.* Br. Zool. 148. t. N. 2.—*Naum.* Vög. Deut. 63. f. 68.—Merge oco minore, *Stor.* degl. ucc. 5. p. 514.—De Kleine Taagbee, *Sepp.* Nederl. Vög. 4. t. p. 296.—*Mont.* Orn. Dict.—Smew or Smu, *Bewick's* Br. Birds, 2. p. 264.—Red-headed Ditto. *Ib.* 2. p. 266.—Lough Plover, 2. p. 268.—Smew, Linn. Trans. 4. p. 234. t. 16. f. 3. (Trachea.)—*Lewin's* Br. Birds, 6. t. 234.—*Pult.* Cat. Dorset. p. 19.—*Walc.* Syn. 1. t. 82.

Provincial.—White Nun. Vare Widgeon. Smee.

This species rather exceeds the teal in size; length about seventeen inches; weight twenty-four ounces; bill near two inches long, and black. The head, neck, and whole under parts of the body pure white; on each side the head an oval black spot, glossed with green; the feathers on the back of the head are long, forming a pendant crest, black underneath; on each side the lower part of the neck is a curved black streak, pointing forwards; the inner scapulars black; coverts on the sides of the wings and greater quills are black; the middle coverts white; the lesser quills, and the coverts immediately over them, black, tipped with white; tail cinereous; legs bluish grey.

The female weighs fifteen ounces; length sixteen inches; the bill is lead-colour; head ferruginous, slightly crested; the cheek, chin, throat, and all beneath white; the breast clouded with grey; on the side of the head the same oval spot as in the male; back dusky, dashed with cinereous; wings like the male; legs dusky, in some inclining to ash-colour.

*The young male has a few feathers of the adult plumage put forth

about the breast and neck, especially the black feathers tipped with white, denoting the approach of those bands, so conspicuously beautiful in the adult. The feathers on the crown are more rufous, and the crest longer than in the female, and the patch on the wing is not pure white, but mottled with brown. The secondary quills and their greater coverts are black, slightly tipped with white, making two slender white lines across that part of the wings. Both these birds had the usual number of tail feathers, (sixteen,) and their legs and toes equally of a blue grey colour, with dusky webs. The old bird weighed twenty-four ounces, and measured eighteen inches; the young one sixteen ounces, and seventeen inches in length.

"The *trachea*, or windpipe of this species," says Latham, "is smallest near the upper part, but enlarges as it approaches towards the middle, from whence to the bottom it continues nearly of equal dimensions, the texture consisting of completely bony rings, with scarcely any cartilage intervening; at the bottom is a bony cavity as in the others, smaller in proportion, and differing in shape, the greater expanse being from side to side; whereas in the other it is almost upwards and downwards; on one side is a round hole, covered by a drum-like membrane, and on the opposite an oval smooth hollow bone uniting with it: from the bottom arises the *bronchial tubes*.

This is by far the most plentiful species of merganser that frequents our coasts and fresh waters in the winter; but we believe it never has been known to breed in this country, seeming to be confined to the arctic regions of both continents, where it builds its nest on the banks of lakes and rivers, laying from eight to twelve white eggs.*

SNAKE BIRD.—A name for the Wryneck.

SNIPE.—*A genus of birds belonging to the Waders (*Grallatores*, Illiger.)*

SNIPE (*Scolopax gallinago*, Linnæus.)

Scolopax Gallinago, *Linn.* Syst. 1. p. 244. 7.—*Gmel.* Syst. 2. p. 662.—*Lath.* Ind. Orn. 2. p. 715. 6.—*Raii*, Syn. p. 105. A. 2.—*Will.* p. 214. t. 53.—*Briss.* 5. p. 298. 2.—*Ib.* 8vo. 2. p. 285.—*Temm.* Man. d'Orn. 2. p. 676.—*Flem.* Br. Anim. p. 106.—Becassine, *Buff.* Ois. 7. p. 483. t. 26.—Snipe, or Snite, Br. Zool. 2. No. 187. t. 68.—*Ib.* fol. 121.—Arct. Zool. 2. No. 366.—*Will.* (Angl.) p. 290. t. 53.—*Albin*, 1. t. 71.—*White's* Hist. Selb. p. 29.—*Lath.* Syn. 5. p. 134. 6.—*Lewin's* Br. Birds, 4. t. 158.—*Walc.* Syn. 2. t. 138.—*Pult.* Cat. Dorset. p. 14.

The weight of this species is about four ounces; length near twelve inches; the bill three inches long, dusky; in some the base is lighter, flattish, and rough at the end; irides dusky; crown of the head black, with a longitudinal light rufous line down the middle; from the base of the upper mandible another line of the same colour passes on each side over the eyes; between the bill and eye is a dusky line; the throat

white; cheeks, neck, and upper breast, mottled with black and light ferruginous; the back and scapulars are black, barred with ferruginous-brown, and striped with yellowish buff-colour, in longitudinal lines; the quills are black, the first edged with white; the secondaries tipped with the same; those next the body are, with their coverts, striated, and barred with light ferruginous; lower breast and belly white; vent brown; upper tail coverts brown, barred with black; the tail consists of fourteen black feathers, barred and spotted with dull orange-red towards the end, with a narrow bar of black near the tip, where it is pale rufous; legs vary; in some dusky or lead-colour, others green.

This is a plentiful species in most parts of England; and is found in all situations, in high as well as low lands, depending much on the weather. In very wet times it resorts to the hills; at other times frequents marshes, where it can penetrate its bill into the earth after worms, which are its principal food.

Some few remain with us the whole year, and breed in the more extensive marshes and mountainous bogs. We have frequently taken the young before they could fly, in the north of England, and in Scotland. Near Penryn, in Cornwall, there is a marsh where several breed annually, and where we have taken their eggs, which are four in number, of an olivaceous colour, blotched and spotted with rufous-brown; some with dusky blotches at the larger end. The nest is made of the materials around it; coarse grass, and sometimes heath. It is placed on a stump or dry spot, near a splash or swampy place; the eggs, like those of the lapwing, placed invariably with their ends inwards, being much pointed; their weight three drams and a half.

In the breeding season, the Snipe changes its note entirely from that it makes in the winter. The male will keep on wing for an hour together, mounting like a lark, uttering a shrill, piping noise; it then descends with great velocity, making a bleating sound, not unlike an old goat, which is repeated alternately round the spot possessed by the female, especially while she is sitting on her nest. This bird has been met with in almost every part of the world.

SNIPE-SABINE'S (Vigors.)

*Scolopax Sabini, Linn. Trans. 14. p. 557.—*Flem.* Br Anim. p. 106.

In length this rare species measures about nine inches and three-tenths; bill two inches and three quarters, of a brownish-black colour; the upper mandible inclining to chestnut at the base; tarsi one inch and a quarter; the plumage brownish-black; the margin of the feathers chestnut, dusky on the back; tail-feathers black at the base, with ferruginous bands towards the tip. The absence of white, and the stripes

of ferruginous yellow, so common to the other species, serve to distinguish this new addition to the British Fauna. Two specimens only are recorded, the one shot in Queen's county, Ireland, on the twenty-second of August, 1822, and now in the collection of Mr. Vigors; the other on the banks of the Medway, near Rochester, on the twenty-sixth of October, 1827, and preserved in the collection of Mr. Dunning, of Maidstone.*

SNITE.—A name for the Snipe.

SNORTER.—A name for the Wheatear.

SNOW BIRD (*Larus eburneus*, LINNÆUS.)

*Larus Eburneus, *Gmel.* Syst. 1. p. 596. sp. 14.—*Lath.* Ind. Orn. 2. p. 816. sp. 10.—Larus Niveus, *Mart.* Hist. der Spitzb. t. L. f. A.—La Mouette Blanche, *Buff.* Ois. 8. p. 422.—*Ib.* pl. Enl. p. 994.—*Temm.* Man. d'Orn. 2. p. 769.—Ivory Gull, *Lath.* Syn. 6. p. 377.—Larus Candidus, *Flem.* Br. Anim. p. 142.—*Fab.* Fauna. Groen. p. 103.—Wern. Mem. 4. p. 501.

A solitary individual of this species was killed at Batta Sound, Zetland, on the thirteenth of December, 1822, a description of which was published in the Wernerian Memoirs, vol. iv., by Mr. Edmonston. The plumage is pure white, without any spot; the bill of an ashy blue colour at the base; the colour of the plumage is strongly contrasted with the feet, which are of a deep black; the iris is brown; length about nineteen inches. Captain Sabine found these birds in great numbers on the coast of Greenland, and in Baffin's Bay.*

SNOW FLECK (*Emberiza nivalis*, LINNÆUS.)

ADULT MALE, IN SUMMER PLUMAGE.

*Emberiza nivalis, *Linn.* Syst. 1. p. 308. 1.—Faun. Suec. No. 227. t. 1.—Bruant de neige, *Temm.* Man. d'Orn. 1. p. 319.—Emberiza nivalis, *Gmel.* Syst. 1. p. 866. sp. 1.—*Lath.* Ind. Orn. 1. p. 397. sp. 1.—Pheatrophanes nivalis, *Meyer*, Tasschenb. Deut.—L'Ortolan de neige, *Buff.* Ois. 4. p. 329.—*Ib.* pl. Enl. 497. f. 1.—Schneeammer, *Bechst.* Naturg. Deut. 3. p. 305.—*Meyer*, Tasschenb. Deut. 1. p. 187.—*Ib.* Vög. Deut. 1. t. Heft. 12. f. 1. old male.—Snow-Bunting, Br. Zool. 1. No. 122. t. 50.—Arct. Zool. 2. No. 222.—*Edw.* t. 126. old male.—*Lath.* Syn. 3. p. 161.—*Ib.* Supp. p. 157.—*Lewin's* Br. Birds, 2. t. 71.—*Mont.* Orn. Dict. 1.—*Ib.* Supp.—*Bewick's* Br. Birds, 1. p. 148.—*Shaw's* Zool. 9. p. 341. t. 54.

YOUNG MALES AND OLD FEMALES, IN WINTER PLUMAGE.

Emberiza glacialis, *Lath.* Ind. Orn. 1. p. 398. sp. 2.—Emberiza mustelina, *Gmel.* Syst. 2. p. 867. sp. 7.—Montifringilla calcaribus alaudæ, major, *Raii*, Syn. p. 88. A. *Will.*—p. 187. t. 77.—Great pied Mountain Finch, *Ib.* (Angl.) p. 255.—Tawny Bunting, Br. Zool. 1. No. 121.—*Lewin's* Br. Birds, 2. t. 72.—*Lath.* Syn. 3. p. 164. 2.—*Mont.* Orn. Dict. 1.—*Ib.* App.—*Shaw's* Zool. 9. p. 344.—Ortolan de passage, *Buff.* Ois. 4. p. 323.

YOUNG OF THE YEAR.

Emberiza montana, *Gmel.* Syst. 1. p. 867. sp. 25.—*Lath.* Ind. Orn. 1. p. 398. sp. 3.—Lesser Mountain Finch, and Bramlin, *Will.* (Angl.) p. 255.—Der Bergammer, *Bechst.* Tasschenb. Deut. 3. p. 314. t. 10.—*Meyer*, Vög. Deut. 1. t. f. 2. and 3.—Mountain Bunting, *Lath.* Syn. 3. p. 165. sp. 3.—*Mont.* Orn. Dict.—*Ib.* Supp.—*Shaw's* Zool. 9. p. 346.—Tawny Bunting, *Bewick's* Br. Birds, 1. p. t. 150.—*Flem.* Br. Anim. p. 78.—*Selby*, pl. 52. fig. 7.

"It is only," says Selby, "after patient scrutiny, and a long course of observation, that I have ventured to bring the synonimes of the Snow, Tawny, and Mountain Bunting, under the same head, and to consider them as belonging to one species, varying only in colour and markings from a difference of age or sex, or from the effect of season. In this view, I am happy in possessing the powerful support of Temminck. I am aware that not a few authors, and, amongst the rest, Montagu, (whose excellent works have contributed so essentially towards a correct knowledge of British Ornithology,) hold a different opinion. But, if we examine into the real ground of the evidence upon which they admit a specific distinction between these birds, we shall find it to rest merely upon the difference of colour or markings; a difference so generally found to prevail between the young and adult, and the male and female, of the feathered tribe. In Northumberland it rarely happens that the three varieties are not annually to be met with, during the winter months; and I have neglected no opportunity for observation on their economy, the result of which is evident in the opinion I have here assumed. Their habits and modes of action are precisely similar, they utter the same notes, and no difference is perceptible in their anatomical structure; to which may be added, that, amongst the numbers I have killed, regular gradations of change from one state to the other have repeatedly occurred."

We shall add to this Selby's very accurate description of the male in its winter plumage. Bill pale saffron-yellow; the tip black; crown of the head white, with the points of the feathers chestnut-brown; hind part of the head pale yellowish-brown; ear coverts tipped with the same colour; under parts white, with more or less yellowish-brown upon the breast; feathers of the back black, deeply edged with greyish-white, or pale yellowish-brown; lower part of the back and the rump white; wing coverts and secondaries white, but in the younger birds black, edged with white; greater quills black, edged with white; two outer tail feathers white, with a small black spot near their tips; the rest black, edged with white; legs and toes black; hind claw produced and nearly straight. In the summer plumage, the head, neck, and all the under parts of the male bird, are pure white; the back being black. The plumage of the females resembles that of the males in their winter's dress, but with more of the yellowish-brown upon the region of the head and the under parts.*

SNOWY OWL (*Strix nyctea*, Linnæus.)

* Strix Nyctea, *Gmel.* Syst. 1. p. 201.—*Lath.* Ind. Orn. 1. p. 57. sp. 20.—*Meyer*, Tasschenb. Deut. 1. p. 75.—*Wils.* Amer. Orn. 4. p. 53. pl. 32. f. 1.—*Flem.* Br.

Anim. p. 58.—Strix alba Freti Hudsonis, *Briss.* 1. p. 522.—La Chouette Harfang, *Buff.* Ois. 1. p. 387.—*Ib.* pl. Enl. 458.—*Temm.* Man. d'Orn. 1. p. 82.—*Veil.* Ois. d'Amer. Sept. 1. pl. 18.—Chouette blanche, *Vaill.* Ois. d'Afr. 1. pl. 45. old bird.—Schnee-Kauz, *Bechst.* Naturg. Deut. 2. p. 925.—Schnewuil, *Meyer,* Vög. Liv. und Esthl. p. 29.—Snowy Owl, Arct. Zool. 2. No. 121.—*Lath.* Syn. 1. p. 132. 17.—*Ib.* Supp. p. 45.—*Mont.* Supp. to Orn. Dict.—*Bewick's* Supp. Br. Birds.—Wernerian Trans. 4.—*Selby,* pl. 23. p. 88.

Mr. Bullock received a specimen from Norwich, with an assurance of its having been killed in that neighbourhood. But this naturalist, by a perseverance in the pursuit of natural objects, has been fortunate enough to discover that the Snowy Owl actually breeds in the more northern part of these realms.

In a tour to the Orkney and Shetland islands, Mr. Bullock was informed, on his landing at North Ronaldshaw, that a large white bird, with a head like that of a cat, had been seen on the island for upwards of a month; and, in consequence of a gentleman of the island assuring him that he had seen the bird (which he described to be as large as a goose) the evening before, he determined to lose no time in pursuit. The place where this owl was always seen is a rabbit-warren, called the Links; to that place, therefore, Mr. Bullock, in company with two other persons, bent his course, and found the bird exactly in the place where it had been so often seen. It was on the ground contiguous to the shore, and, doubtless, frequented the warren for the sake of making a prey of the rabbits. The bird suffered Mr. Bullock to approach within forty yards, and by means of a glass he minutely examined it, and discovered that it was a male by its being of an immaculate white. When it rose it was fired at, but unfortunately was not stopped, and it flew about a mile. A reward being offered, all the guns in the island were put in instant requisition, and the consequence was, that by being repeatedly shot at by bad marksmen, the bird flew at last from the island, in the direction of the Isle of Sanda. It appears that the female owl had been shot on the island a few weeks before, and plucked for the sake of the feathers; this was mottled with brown.

Upon visiting the Isle of Westra, a few days after, Mr. Bullock was informed that a similar bird had been seen there a few days before on a rabbit-warren. In Shetland, Mr. Bullock was more successful, for in Unst, the most northerly of the islands, he not only procured a specimen of the Snowy Owl, but found that it bred as well there as on the neighbouring isle of Yell. From the observations of this gentleman, it appears that this species of owl preys in mid-day, as well perhaps as in the morning dawn, or dusk of the evening. This circumstance is not singular, since some of the other species do the same. It does not conceal itself like most of the genus, but prefers resting upon the

ground, where it can look around, and perceive the approach of an enemy; and when roused it flies slow and heavily.

We do not recollect that this hardy bird, which braves the winters of the polar regions, has ever been before noticed to breed so far south as Shetland. It has generally been esteemed an arctic species, residing the whole year amongst the glaciers and snowy mountains, where, except the white bear, the arctic fox, the ermine, and the ptarmigan, scarcely any thing living is to be found in the colder months. Mr. Pennant says it is common in Hudson's Bay, in Lapland, and in Norway. In Sweden it is said to prey upon the ptarmigan and alpine hare, whence the Swedish name *Harfang*. It has been generally supposed that the Snowy Owl changes its plumage with the season, and that the snowy whiteness of its colour, observable in the winter, was thrown off on the approach of the warmer months, in exchange for that of a mixture of brown and white. From the observations of Mr. Bullock, this is not strictly true, since in the early part of July, this bird was noticed, of a pure white, as far south as the Orknies, in latitude 59°. The female, indeed, was mottled; and possibly the young male birds, for a year or two, may not be pure white, but they may become whiter in their autumnal moulting.

This noble species rather exceeds the size of the eagle owl, being nearly two feet in length, and sometimes weighing above three pounds. The bill is black; irides yellow; the plumage varies from pure white to that of being marked on the head with small brown spots, and with narrow lines of the same, transversely placed on the back, and under the wings on the sides; the quills are also spotted with brown, as well as the feathers of the tail; the legs and toes are covered with close white feathers; the claws are black, very large, and much hooked.*

SOLAN GOOSE.—A name for the Gannet.

SOLITARY THRUSH (*Turdus cyanus*, Gmelin.)

*Turdus cyanus, *Gmel.* Syst. 1. p. 834. sp. 24.—*Lath.* Syn. 1. p. 345. sp. 60.—*Temm.* Man. d'Orn. 1. p. 174.—Turdus solitarius et Manillensis, *Lath.* Syn. 1. sp. 61. 832.—Le merle bleu, *Buff.* Ois. 3. p. 355. t. 24.—*Ib.* pl. Enl. 250.—*Edw.* t. 18.—Solitaire de Manille, *Buff.* Ois. pl. Enl. 564. f. 2.—Merle solitaire, *Gerard.* Tab. élém. Orn. 1. p. 106.—Blue, Solitary, and Pensive Thrush, *Lath.* Syn. 3. p. 51. 2. and 3.—Passera solitaria, *Stor.* degl. ucc. 3. t. 310.—Blaine Drossel, *Meyer,* Tasschenb. Deut. 1. p. 203.—*Will.* (Angl.) p. 191. t. 36. 37.

This species is about nine inches in length. The bill is dusky, nine-tenths of an inch long to the feathers on the middle of the forehead, straight, except at the tip, where the upper mandible is a little deflected, and projects beyond the lower; the base is rather broad, but there is scarcely any appearance of a notch at the end; the nostrils are

placed at the base of the bill, and are partly covered by the feathers, which come rather more forward on the sides than on the ridge of the bill. The general colour of the plumage is brown, the upper part and sides of the head, back, scapulars, rump, and upper tail coverts plain, except the tips of the feathers on the back being paler, giving that part a slightly spotted appearance; the chin is sullied white; above and behind the eyes the feathers are paler than those adjacent: from the bill to the eye dusky; the feathers on the throat and neck beneath are pale yellowish-brown at their tips, whitish at their base, which gives that part a mottled appearance: the upper part of the breast plain brown, but rather paler than the back; the sides under the wings nearly the same; the lower breast and belly down to the vent mottled or streaked with brown and white, the middle of the feathers being of the former colour; the under tail coverts pale brown, with a rufous tinge; the quills and greater coverts of the wings are brown, margined with rufous; the tail is a little forked, the feathers are brown, their margins tinged with rufous; the legs are rather long in proportion, strong, and with the toes and claws of a yellowish-brown colour; the middle toe is closely connected to the outer as far as the first joint. It is an elegant bird, not quite so large in the body, but as long as the throstle. The head is remarkably small, and the crown almost straight with the bill, there being scarcely any elevation on the forehead, but formed like that of the stare; this shape, together with a straight and proportionably long bill, gives the head a lengthened appearance; the legs are remarkably strong in proportion to the bulk of the bird, being larger than those of the throstle; the *vibrissæ*, or bristles, between the base of the bill and the eye, are black, but short, and not very conspicuous: the mouth is large, and opens as far back nearly as the hinder part of the eye. The bird here described was shot about the middle of June, 1810, at Copgrove, in Yorkshire.

The Solitary Thrush is described as common in France, Italy, and in the islands of the Mediterranean and Archipelago; and yet neither Buffon nor Brisson appear to have given a figure of it. It is said to frequent mountainous and rocky places, and to be always seen alone, except in the breeding season. Like the stare, it prepares its nest in old ruined edifices, church towers, and other similar places, and lays five or six eggs; but two nests are never found near the same place. The young are easily brought up, and repay the trouble by their sweet native song; they may be also taught to whistle, and articulate words. When confined, this species sings as well by candle-light as by day. Its food is principally insects, grapes, and other fruit. It

is observed to change its abode with the seasons, coming into those parts where it usually breeds, in April, and retiring in August. When killed, this bird was sitting on the ground in a meadow, and suffered the man to approach it without fear, and in that situation it was shot. The colour of the irides was not noticed, but upon dissection for preserving, two enlarged eggs were discovered.—[See BROWN STARLING.]

SONG OF BIRDS.—As the song of birds is not allowed to be the effect of love, by an honourable author on the subject of singing birds, (Daines Barrington,) we shall endeavour to elucidate this matter from experiments on birds, in their natural wild state; and also endeavour to prove that their notes are innate, contrary to that author's opinion. That confined birds will learn the song of others they are constantly kept with, there is no doubt; but then it is generally blended with that peculiar to the species. In the spring, the very great exertions of the male birds in their vociferous notes are certainly the calls to love; and the peculiar note of each is an unerring mark for each to discover its own species. If a confined bird had learned the song of another, without retaining any part of its natural notes, and was set at liberty, it is probable it would never find a mate of its own species; and even supposing it did, there is no reason to believe the young of that bird would be destitute of its native notes; for if nestling birds have no innate notes peculiar to the species, and their song is only learned from the parent bird, how are we to account for the invariable note each species possesses, when it happens that two different species are bred up in the same bush, or in one very contiguous, or when hatched or fostered by a different species. There is every reason to believe it is necessary that there should be native notes peculiar to each species, or the sexes might have some difficulty in discovering each other, the species be intermixed, and a variety of mules produced; for we cannot suppose birds discriminate the colours by which their species are known, because some distinct species are so exactly alike that a mixture might take place. The males of song birds, and many others, do not in general search for the female, but, on the contrary, their business in the spring is to perch on some conspicuous spot, breathing out their full and amorous notes, which, by instinct, the female knows, and repairs to the spot to choose her mate. This is particularly verified with respect to the summer birds of passage. The nightingale, and most of its genus, although timid and shy to a great degree, mount aloft, and incessantly pour forth their amorous strains, each seemingly vieing in its love-laboured song before the females arrive. No sooner do they make their appearance than dreadful battles ensue, and their notes are consi-

derably changed; sometimes their song is hurried through without the usual grace and elegance; at other times modulated into a soothing melody. The first we conceive to be a provocation to battle on the sight of another male; the last an amorous cadence, a courting address. This variety of song lasts no longer than till the female is fixed in her choice, which is in general in a few days after her arrival; and, if the season is favourable, she soon begins the task allotted to her sex.

The male now no more exposes himself to sing as before, nor are his songs heard so frequently, or so loud; but while she is searching for a secure place to build her nest in, he is no less assiduous in attending her with ridiculous gestures, accompanied with notes peculiarly soft. When the female has chosen a spot for nidification, the male constantly attends her flight to and from the place, and sits upon some branch near, while his mate instinctively places the small portion of material she each time brings to rear a commodious fabric for her intended brood. When the building is complete, and she has laid her portion of eggs, incubation immediately takes place. The male is now heard loud again, but not near so frequently as at first; he never rambles from her hearing, and seldom from her sight; if she leaves her nest he soon perceives it, and pursues her, sometimes accompanied with soft notes of love. When the callow brood appears he is instantly apprised of it, either by instinct, or by the female carrying away the fragment shells to some distant place. The male is now no more heard in tuneful glee, unless a second brood should force the amorous song again; his whole care and attention is now taken up in satisfying the nutrimental calls of his tender infant race, which he does with no less assiduity than his mate, carrying them food, and returning frequently with the muting of the young in his beak, which is dropped at a distance from the nest. Here we must beg leave to digress for a moment to remark, that, with the utmost attention, we have never been able to discover the parent birds giving their young a musical lesson; and much question if the late brood of many species ever hear the song of their parents, till they join chorus the ensuing spring, when they also feel the impulse of love, the great dictate of nature.

The continuation of song in caged birds, by no means proves it is not occasioned by a stimulus to love; indeed it is likely the redundancy of animal matter from plenty of food, and artificial heat, may produce it; and this is sufficient reason for continuing their song longer than birds in their natural wild state, because they have a constant stimulus; whereas wild birds have it abated by a commerce with the other sex, by which, and other causes, it is prevented. It is true wild birds are

heard to sing sometimes in the middle of winter when the air is mild, animated by the genial warmth of the sun, which acts as a stimulus. Birds in song are generally found, by dissection, to have the *testes* somewhat dilated. But we shall now proceed to shew, by experiments, that birds in their natural state may be forced to continue their song much longer than usual. A male redstart made its appearance near my house early in the spring, and soon commenced his love-tuned song. In two days after, a female arrived, which, for several days, the male was continually chasing, emitting soft interrupted notes, accompanied by a chattering noise. This sort of courting lasted for several days, soon after which the female took possession of a hole in a wall close to my house, where it prepared a nest, and deposited six eggs. The male kept at a distance from the nest, and sometimes sung; but not so loud or so frequently as at first, and never when he approached nearer his mate. When the eggs had been sat on a few days, I endeavoured to catch the female on the nest, but she escaped through my hand. However, she soon returned, and I caught her. The male did not immediately miss his mate; but on the next day he renewed his vociferous calls, and his song became incessant for a week, when I discovered a second female; his note immediately changed, and all his actions, as before, returned. This experiment has been repeated with the nightingale with the same success; and a golden-crested wren, who never found another mate, continued his song from the month of May till the latter end of August. On the contrary, another of the same species, who took possession of a fir-tree in my garden, ceased its notes as soon as the young were hatched.

* Although, I confess, there appears considerable force in these arguments of Montagu, I am disposed to be of opinion, that birds sing most frequently from joy and buoyancy of spirits, and not unfrequently in triumphant defiance of rivalry or attack. I have a red-breast at present, who will sing out whenever I snap my fingers at him; and the sedge-bird sings when a stone is thrown into the bush where he may be.

Syme's remarks upon the songs of birds, are worth quoting: "The notes," he says, "of soft-billed birds, are finely-toned, mellow, and plaintive; those of the hard-billed species are sprightly, cheerful, and rapid. This difference proceeds from the construction of the larynx; as a large pipe of an organ produces a deeper and more mellow-toned note than a small pipe, so the trachea of the nightingale, which is wider than that of the canary, sends forth a deeper and more mellow-toned note. Soft-billed birds, also, sing more from the lower part of

the throat than the hard-billed-species. This, together with the greater width of the larynx of the nightingale and other soft-billed warblers, fully accounts for their soft, round, mellow notes, compared with the shrill, sharp, and clear notes of the canary and other hard-billed songsters. In a comprehensive sense, the complete song of birds includes all the notes they are capable of uttering; and, taken in this sense, it is analogous to the speech of man. It is the vehicle through which these little creatures communicate and convey to each other their mutual wishes and their wants. It may be divided into six distinct separate sounds or parts, each of which is very expressive, even to us, of the feelings which agitate the bird at the moment. To describe their song more fully, we shall divide it in the following manner: *First*, The call-note of the male in spring; *second*, The loud, clear, ardent, fierce notes of defiance; *third*, The soft, tender, full, melodious, love warble; *fourth*, The notes of fear or alarm, when danger approaches the nest; *fifth*, The note of alarm, or war-cry, when a bird of prey appears; *sixth*, The note the parent-birds utter to their brood, and the chirp or note of the young. The note of the young may be again divided into two,—that which they utter while in the nest, and the chirp after they have left it,—for they are very distinct sounds or notes; to which may be added, a soft, murmuring kind of note, emitted by the male while he is feeding the female in the nest; and also by her while she is receiving the food. The call-note; the warble of love; and the notes of defiance, or prelude to battle, seem only to be understood by birds of the same species, at least in a wild state. Perhaps, in a state of domestication, birds of different genera, if nearly allied, may partially comprehend these notes, as the canary bird does the notes of the siskin, the goldfinch, and the linnet. But this, we think, is more occasioned by necessity than choice in these birds; and, in this case, it is man who breaks down the barriers nature has so wisely put between different species. The note of fear or alarm of the cock-bird, by which he gives notice to the hen of the approach of danger near the nest, and which she perfectly understands—for she either keeps close, or quietly makes her escape; this note, we think, is also only comprehended by birds of the same species, though we have certainly seen birds of different genera appear as if alarmed by this note of fear, sounded by a bird of a different species or genus; but whether it was the note that alarmed them, or our presence, we cannot say. But we are pretty sure, the notes of parent-birds, and the chirp of their young, are only understood by birds of the same species, or, rather we should say, family, for it

appears to be a family language, understood reciprocally by parent-birds and their young; for the young know the notes of their parents, and the parents those of their own brood, amongst all the young broods of other birds of the same species in the neighbourhood; and this they do, as distinctly as the ewe knows the bleat of its own lamb, or the lamb the cry of its own mother, amongst a large flock. With regard to the note of alarm birds send forth on the approach of their natural enemies, whether a hawk, an owl, or a cat, we consider it to be a general language perfectly understood by all small birds, though each species has a note peculiar to itself. This note differs in sound from the note of fear or alarm, given by them when man approaches near their nests. This last seems confined to a species; but this general alarm note, (which is understood by all small birds,) we would call their warwhoop or gathering cry, for it is a true natural slogan. All the notes comprised in the song of birds convey delight to the mind of a lover of nature; but the bird fanciers only prize their love warble, and notes of defiance; these notes, and these only, he considers to be their song. The musical notes of birds, whether of love or war, are sweet, and really charming in themselves; but they perhaps pour on the mind a greater degree of pleasure than mere sound is capable of conveying,—we mean the recollections of youthful days, of endearing incidents, or of scenes connected with country pleasure. We ourselves prefer the mellow, plaintive melody of the soft-billed species; but others give the palm to the cheerful warble of the hard-billed tribe: which of these two styles is the sweetest melody we cannot determine. Both warbles may be equally fine; and the preference, perhaps, may depend on taste and feeling. But it is allowed, by all who have an ear for music, or rather, we should say, who have an ear and love for simple natural melody, that the song or warble of birds is truly delightful; but all their musical notes cease as soon as the brood is hatched."

I may be permitted to inquire,—since birds sing in a pitch so irregular, and with intervals so unsettled, exhibiting a total disregard to measure and rhyme,—what makes their music pleasing? The cause has been traced to association; for they seldom sing but in fine weather, and when pleased; and for the last reason, even the *sostenuto* of the cat is not unpleasing. The variety and rapidity of their notes and intonation also awakens attention; and the contrast between rapid flights of double-demi-semi-quavers, and lengthened and sweet minims, is often wonderful; such as the soft and sustained notes of the nightingale, succeeded by a short and expressive passage of quicker sound.

It is, perhaps, too much to say, that we have borrowed all our music from birds; but some of it is evidently a plagiarism.

The cuckoo itself has done more for our music than musicians may be willing to allow; but it is no more than just to a despised bird to say, that from it we have derived the *minor scale*, whose origin has puzzled so many,—the cuckoo's couplet being the *minor third* sung downwards.

The windpipe of the bittern is capable of great distension, and can be filled with air and exploded at pleasure. Dr. Latham informs us that Mr. Lamb had observed this structure in several which he dissected. Whether this membrane has a distinct communication with the *trachea*, independent of the lungs, is not noticed. If it is only an enlargement of the membrane, that in many birds is observed within the thorax, close to the clavicles, it is a part of that conformation which constitutes the air cells so peculiar to birds. The *aspira arteria* of those we have dissected had nothing very remarkable, and certainly had no communication with the interior of the body, but through the lungs. If this membrane is a part of the *bronchi* of the *trachea*, ours were not capable of any great extension; the interior part of the divarications is wholly membranous, of a very fine texture; and the exterior sides are furnished with very slender cartilaginous bars, for they do not surround the *bronchial* tubes of the *trachea*. This membraneous structure of the part in question is by no means uncommon in other species.

In fact, the propagation of sound, and different notes in animals, is at present very imperfectly understood; and the curious conformation observed in the *trachea* of some species of birds, rather puzzle, than confirm any hypothesis upon the subject.

If we were to reason mechanically, we might conclude that the labyrinth at the lower extremity, or the enlargement in the middle of the *trachea* of some birds, especially the semiossious chambers in the mergansers, and some species of ducks, were intended as condensers to assist in the compression of the air for augmenting the sound; but experience informs us this is not the case, for some birds possessing a labyrinth, have weak voices, exemplified in the mallard or male of the common duck. But as sound is produced by birds from the lower extremity of the *trachea*, and not from the *larynx*, the condensation of air before that part cannot promote the force of the expulsion through the soniferous organ, but only serves to modulate the tone.*

SONG THRUSH.—A name for the Throstle.

SPARLING FOWL.—A name for the Dundiver.

SPARROW (*Passer domesticus*, Aldrovand.)

* Fringilla domestica, *Linn.* Syst. 1. p. 323. 36.—*Gmel.* Syst. 1. p. 925. sp. 36.—*Lath.* Ind. Orn. 1. p. 432. sp. 1.—Pyrgita domestica, *Cuv.* and *Flem.* p. 83.—Passer domesticus, *Raii*, Syn. p. 86. A.—*Will.* p. 182.—*Briss.* 3. p. 72.—Le Moineau, *Buff.* Ois. 3. p. 474. t. 29. f. 1.—*Ib.* pl. Enl. 6. f. 1. and 2.—Grosbec Moineau, *Temm.* Man. d'Orn. 1. p. 350.—Haus Sperling, *Bechst.* Naturg. Deut. 3. p. 107.—*Frisch*, t. 8. f. 1. A. B.—*Meyer*, Tasschenb. Deut. 1. p. 156. House Sparrow, Br. Zool. 1. No. 127. t. 51.—Arct. Zool. 2. p. 382. g.—*Will.* (Angl.) p. 244. t. 44.—*Lath.* Syn. 3. p. 248. 1.—*Ib.* Supp. p. 163.—*Lewin's* Br. Birds, 2. t. 77.—*Mont.* Orn. Dict. 2.—*Albin*, 1. t. 62.—*Walc.* Syn. 2. t. 215.—*Pult.* Cat. Dorset. p. 12.—*Low's* Faun. Orcad. p. 59.—*Bewick's* Br. Birds, 1. p. t. 154.—*Shaw's* Zool. 9. p. 429. t. 64. figs. 1.*—*Selby*, pl. 54. figs. 4. 5. p. 265.*

This well-known species weighs near seven drams; length about six inches; the bill is dusky; irides hazel; the crown of the head ash-colour; round the eye, and between that and the bill, is black; behind the eyes, surrounding the back part of the head, bay; cheeks white; chin and under part of the neck black, mixed with grey; belly dirty white; the coverts of the wings are chestnut and black mixed, with a whitish bar across them; the back a mixture of black and rufous; quills dusky, with rufous edges; tail dusky, edged with grey; legs brown. The bill of the female is lighter; behind the eye a line of white; the head and whole upper parts are brown, the under dirty white, dashed with ash-colour; no black on the chin or neck. * In the country, the Sparrow exhibits a gloss and intermixture of colours rarely to be seen in those inhabiting large towns, which soon become of a dingy, and almost uniform hue, from the accumulation of dust and smoke upon their plumage.*

The Sparrow is well known in every part of England; it inhabits the dwellings of the rich and poor, taking possession of the humble thatched cottage in preference to the sumptuous palace. It is rarely seen far from the habitation of man, as it delights in the fruits of his labour; the highest cultivated parts producing the greatest quantity. It might be said of this bird, as of some species of water-fowl, which remaining always within soundings, warn the mariner of his approach to land; so on the extensive and dreary mountains, not a sparrow is ever to be seen; and the sight of one bespeaks some habitation near. It makes a nest conformable to the place it chooses for incubation; whether in a hole of a wall, in thatch, or under the tiles of a house, or in a window swallow's nest, it must conform to the size of the place; but when the nest is made in a tree, it is of large size, and covered at top, composed of hay and straw, lined warmly with feathers and fragments of thread or worsted, bits of cloth, or any refuse material of that sort, found about houses.

*This accommodation of the structure of the nest to the locality where it is built, is in no instance, with which we are acquainted, more conspicuous than in the proceedings of the house-sparrow. Dr. Darwin mentions, seemingly as an extraordinary circumstance, that "in the trees before Mr. Levet's house, in Lichfield, there are annually nests built by Sparrows, a bird which usually builds under the tiles of houses or the thatch of barns;"[1] but if he had been acquainted with the works of Bonnet, he would have learned that in Switzerland, at least, the Sparrow "most usually (*pour l'ordinaire*) builds near the tops of trees,"[2] while its nestling under tiles is an accidental exception. In the vicinity of London also, we venture to say that three pair of Sparrows build on trees to one pair that nestle in holes; and so commonly is this noticed, that the tree-sparrow is popularly supposed to be a different species from the house-sparrow. The tree-sparrow (*Passer montanus*) of Yorkshire, is indeed a different species, which lays pale-brown eggs without spots; but the London ones, which build either on trees or in holes, have not a shade of difference.

The circumstance which renders these nests most interesting, is their very different conformation when built in a tree, or under the shelter of a roof tile. When a hole is selected, it is first bedded with coarse straw, hay, and sometimes moss, or similar materials, over which is laid feathers, wool, cotton, pieces of ribbon, tangled thread, or whatever the birds can find to suit their purpose. There is now opposite my windows a faggot of sticks, bound with a piece of old rope, which the Sparrows have been employed half the summer in making into oakum, as a seaman would say, every fibre of loose ends having been carded out by their beaks, and carried off piecemeal. Last summer, a pair of these birds, unfortunately for themselves, carried off from the garden a long piece of bass, which had been tied round a lettuce, for the purpose of blanching it; but when this had been successfully stowed in the nest under the tiles, it appeared that they had not sufficient skill to work it into the fabric; and in their endeavours to manage it, both the birds entangled their feet so inextricably in the folds, that they were held close prisoners, one only having line enough to flutter about a foot beyond the entrance. How long they had remained thus entangled I know not, as my attention was called to their situation by the more than ordinary cackling of their neighbour sparrows, who had assembled, it appeared, more to scold the unfortunate pair for their carelessness than to assist them in getting rid of the bass, for not one

[1] Zoonomia, xvi. p. 13. 2. [2] Contempl. de la Nature, pl. xii. Note 6.

attempted to aid them. I therefore had them taken down, but they were so exhausted with their struggles, that they did not long survive; and a pair of their scolding neighbours took possession of their premises a few days afterwards.

It is worthy of notice, that they always proportion the quantity of materials to the size of the nest hole, which is generally packed close, leaving only a sufficient cavity for hatching the eggs and rearing the young. I have one of these nests, for example, which could almost be hid in the hollow of the hand, and another, built about a yard from it, which would fill a hat. When the nest is built on a tree, however, it is always nearly of the same dimensions, about a foot in diameter each way. From the bird nestling occasionally in holes, it might be imagined that when it made choice of a tree, it would be on account of thus obtaining a canopy of thick boughs to form a roof; but, on the contrary, Sparrows, for the most part, select a high, exposed branch, as if they were more anxious to be out of the reach of cats, than of cold winds. I know one of these nests at present, built at the very summit of a pear-tree, on a slender bough, which bends to every breeze. But wherever the nest is placed, a roofing seems to be an indispensable requisite; and in such a nest as that on the pear-tree, a dome of straw is piled together in the same loose, lumbering, inartificial style of the rest of the structure, an entrance being formed under this in the side, sufficient to admit the bird, but not neatly rounded, as is the case in the nests of wrens. When Sparrows build in the ivied wall of a house, as they often do, they do not consider the thick clustering of the leaves above the nest as a sufficiently warm coping; and in such cases usually, if not always, construct a dome of straw, though much more slight than in nests built on the exposed branches of trees.

From its anxiety to procure shelter, the Sparrow indeed seizes upon any convenience it can find best adapted to its purpose, whether that be accidental or have been prepared by some other bird. One very cogent reason for this, appears to be its looking forward prospectively to the winter, for Sparrows occupy their nests at night throughout the year, and though they are hardy birds, they require a warm shelter during severe frosts. From its evident preference of houses, I have been surprised at finding it in one or two situations not a little singular, when compared with its ordinary abodes. It often most unceremoniously appropriates the holes which the bank-swallow has been at the trouble of burrowing into a bank. White says "this most usually happens when the swallows breed near hedges and enclosures,"

but though Sparrows delight to frequent such places, they rarely nestle in their vicinity, unless houses be near, and not even then in any number. In a colony of bank-swallows, for instance, near Charlton, in Kent, consisting of more than a hundred pairs, not more than two or three pairs of Sparrows have settled; I say "settled," because they appear to live on terms of good neighbourhood with the original colonists, as I have watched them for hours passing and re-passing without the least indication of hostility, which amongst birds soon shows itself in tones of insult and defiance, and by incessant skirmishing and bickerings. How differently these same bank-swallows treated a poor cuckoo, I had an opportunity of witnessing, while observing their good fellowship with the Sparrows. The cuckoo was flying quietly along, certainly meditating no harm against the swallows, and not even poaching on their domain by hawking for flies, inasmuch as he prefers a breakfast of caterpillars, which the swallows never touch; nevertheless, the instant he appeared, the tocsin was sounded, and every swallow in the colony darted out of the holes to pounce upon the intruder, whom they beat most unmercifully with bill and wing, till they drove him from their boundaries. The Sparrows, meanwhile, sat at the mouths of their holes with the utmost nonchalance as spectators, altogether unconcerned in the affray.

I have mentioned this harmonious consociality of the bank-swallows and the Sparrows, the rather, because we meet with anecdotes in books of obstinate contests for possession between Sparrows and other species of swallows. Avicenna, and afterwards Albertus Magnus, tell us that when a Sparrow takes forcible possession of the nest of a window-swallow, (*Hirundo urbica,*) there ensues determined battle between the proprietors and the invaders, in which the latter usually come off in the first instance victorious, from their cunningly remaining in the nest. The swallows, however, take care to be revenged; for, summoning in their companions to assist them, they bring a quantity of the mortar which they use in building their nests, and closing up the entrance, entomb the Sparrows alive. The same story is given by Rzaczynski; and Batgouski, the Jesuit, affirms that he was an eye-witness of the circumstance, while Linnæus, who was much too credulous of such matters, states it as a fact ascertained.[1] M. Montbeillard, on the contrary, says that the instances which he has witnessed of contests of this kind give no countenance to the story. He observed the swallows,

[1] Fauna Suecica.

indeed, return frequently in the course of the summer to quarrel with the Sparrows, and often wheeling about for a day or two; but they never attempted to enter the nests, or to shut them up with mortar.[1] The whole account, indeed, I should say, is a romancing legend; for the Sparrows, with their strong bills, would instantly demolish the thickest wall which the swallows could build, instead of quietly permitting themselves to be imprisoned, as the above veracious writers have chosen to report.

I may mention that another of its chosen stations is a rookery, where no one who had previously observed it burrowing in a sand-pit among bank-swallows, or creeping like a garret-mouse under the tiles or thatch of a house, could have expected to find it associating with rooks upon the loftiest elms around a manor-house. Yet in such situations Sparrows are very often seen rearing their offspring contiguous to their more powerful neighbours, the rooks, who seem to take no offence at the Sparrows, either because they are too insignificant, or because they may relish their incessant yelping as a good concerto accompaniment to their own no less continuous cawing. One thing, we believe, is certain, that a Sparrow never ventures (at least during the breeding-season) to nestle in the interior of any rook's nest which has not been abandoned, and is contented with building under shelter of the large structure, either immediately below, or to leeward. In winter, however, when the rooks do not come to the rookery, the Sparrows, as we have remarked, are not so ceremonious in keeping their distance, thinking themselves at liberty to roost in the warmest nests they can select. In the rookery at Lee, I have observed them throughout the winter assembling every night at sun-set, squabbling together for nearly an hour as if to settle their claims to particular nests belonging to the absent rooks.

I am not aware that any contrivance is resorted to in Britain, to entice birds to build in particular places, except in the case of the house-sparrow. In the vicinity of London more particularly, pots of unglazed delf ware of a sub-oval shape, with a narrow hole for an entrance, are fixed upon the walls of houses, several feet below the eave, and the Sparrows finding a domicile so suited to their habits, very soon take possession of every pot thus provided for them. But those who are so careful to accommodate the Sparrows, do it not because they are fond of their neighbourhood or their yelping concerts, but to prevent their

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[1] Oiseaux, Art. La Hirondelle.

nestling under the eaves, where they dig out the mortar with their strong bills, when they do not find holes large enough for their accommodation. It probably never struck those wise persons, that by thus encouraging the Sparrows to breed, they are promoting the increase of the race, and unless they multiply their Sparrow pots yearly, they may be almost certain that the supernumeraries will resort to eaves nearest their birth-place. In Holland, square boxes are placed on the house-tops, to entice the stork (*Ardea ciconia*) to build; and for the same purpose it was customary in France, in Belon's time, to place wheels there, a practice said to be still followed in some parts of Germany.*[1]

The Sparrow lays six eggs of a whitish colour, spotted with dusky-brown or ash-grey, and varying much in the shades as well as the thickness of the spots; each weighs from forty-three to forty-eight grains. Accidental varieties occur, such as white, black, and yellowish.

SPARROW HAWK (*Accipiter fringillarius*, Ray.)

* Falco Nisus, *Linn.* Syst. 1. p. 131. 31.—Fauna. Suec. No. 69.—*Gmel.* Syst. 1.p. 280. 31.—*Lath.* Ind. Orn. 1. p. 44. 107.—*Meyer*, Tasschenb. Deut. 1. p. 25.—*Muller*, No. 71.—Buteo Nisus, *Flem.* Br. Anim. p. 55.—Accipiter Fringillarius, *Raii*, Syn. p. 18. A. 2.—*Will.* p. 51. t. 5.—*Vigors*, Zool. Jour. 1. p. 327. L'Epervier, *Buff.* Ois. 1. p. 225.—*Ib.* pl. Enl. 467. and 412.—*Temm.* Man. d'Orn. 1. p. 56. 2.—Die Sperber, *Bechst.* Tasschenb. Deut. 1. p. 29.—Sparrow Hawk, Br. Zool. 1. No. 62.—*Ib.* fol. t. A. 10. A. 11.—Arct. Zool. 2. p. 226. N.—*Lath.* Syn. 1. p. 99. 85.—*Ib.* Supp. p. 26.—*Lewin's* Br. Birds, 1. t. 20.—*Haye's* Br. Birds, t. 3 —*Will.* (Angl.) p. 86.—*Mont.* Orn. Dict.—*Bewick's* Br. Birds. 1. p. 27.—*Shaw's* Zool. 7. p. 187.—*Low's* Fauna. Orcad. p. 38.—*Pult.* Cat. Dorset.—*Selby*, pl. 13. and 13. p. 33. *

The weight of the male of this species, is about five ounces; that of the female, nine; the former measures, in length, about twelve inches; the latter, fifteen; the bill is bluish, dusky at the point; cere yellow; irides bright orange yellow. In some of both sexes the plumage of the upper parts are of a deep bluish grey; in others brown, edged with ferruginous; the under parts of the female are more fully marked with minute undulated lines of deep brown; the male is inclined to rust-colour on the breast, which in the other is whitish; on the back of the head, in both sexes, is an obscure broken patch of white; quill feathers dusky, barred with black on the outer webs, and spotted with white at the base of the inner; the tail like the back, with broad bars of dusky black, the extreme point whitish; legs long, slender, and yellow.

This is a very common species in most of the wooded or enclosed parts of the kingdom, but less frequent in the more champaign parts. It seldom makes a nest, but generally takes possession of that which

[1] Montbeillard, Oiseaux, La Cicogne blanche.

has been deserted by a crow. It lays four or five eggs of a dirty white, sometimes of a bluish tinge, blotched at the large, and sometimes, though rarely, at the smaller end with rust-colour.

The female Sparrow Hawk is a very bold bird; and has been trained for hawking with success, though its flight is not so rapid as the longer winged hawks. It is a great destroyer of game and young poultry: we have frequently known them carry away half a brood of chickens before the thief was discovered. They fly low, skim over a poultry yard, snatch up a chick, and are out of sight in an instant. It is observable that the most generous hawks, (as they were formerly termed,) that is, the most tractable, have long and pointed wings, the second feather being the longest. To this division the falcons, properly so called, belong; the hobby, merlin, and kestrel, are also of this kind.

This species, as well as the goshawk and all the buzzards, are short winged. These have the third and fourth feather in the wing nearly of the same length, and longer than the second; so that the wings when spread have a more rounded appearance at the end.

The more generous hawks, we have frequently observed, kill their prey as soon as caught, by eating the head first; whereas the buzzards, in particular, begin eating their prey indiscriminately. We have several times taken partridges and other birds from them, which had one side of the breast or a thigh devoured, and the bird still alive.

Although I have known this bird frequently take possession of the abandoned nest of a crow or a magpie, without making any additional repairs, I have also known it to breed in the holes of precipitous rocks, as at Howford, near Mauchline, in Ayrshire, and Cartlan Crags, near Lanark. "About the tenth of July," says White, "a pair of Sparrow Hawks bred in an old crow's nest on a low beech, in Selborne Hanger; and as their brood, which was numerous, began to grow up, became so daring and ravenous, that they were a terror to all the dames in the village, who had chickens or ducklings under their care. A boy climbed the tree, and found the young so fledged, that they all escaped from him; but he discovered that a good house had been kept: the larder was well stored with provisions, for he brought down a young blackbird, jay, and house martin, all clean picked, and some half devoured. The old birds had been observed to make sad havoc for some days among the new-flown swallows and martins, which, being but lately out of their nests, had not acquired those powers and command of wing that enable them, when more mature, to set enemies at defiance."[1]

[1] Nat. Hist. of Selborne, i. 188, 8vo; and p. 279, foolscap 8vo.

SPARROW OWL (*Noctua passerina*, Savigny.)

*Strix passerina, *Linn.* Syst. 1. p. 133. 12.—*Gmel.* Syst. 1. p. 296. sp. 12.—*Lath.* Ind. Orn. 1. p. 65. 46.—*Flem.* Br. Anim. p. 58.—Noctua minor, *Raii*, Syn. p. 26. 6.—*Will.* p. 69. t. 13.—*Briss.* 1. p. 514. 5.—Chouette Chevêche, *Temm.* Man. d'Orn. 1. p. 92.—La Chevêche ou Petit Chouette, *Buff.* Ois. 1. p. 78.—Strix nudipes, *Nils.* Orn. Suec. 1. p. 68. sp. 30.—Kleiner-kauz, *Bechst.* Naturg. Deut. 2. p. 963.—*Meyer*, Tasschenb. Deut. 1. p. 80.—*Ib.* Vög. Liv. und. Esthl. p. 36.—Little Owl, Br. Zool. 1. No. 70.—Arct. Zool. 2. No. 126.—*Lewin's* Br. Birds, 1. t. 39.—*Will.* (Angl.) p. 105. t. 13.—*Lath.* Syn. 1. p. 150. 40.—*Mont.* Orn. Dict. and Supp.—*Bewick's* Br. Birds and Supp.—*Selby*, pl. 26. p. 64.*

This elegant little species of owl is the smallest that has been found in England. The length little more than eight inches; size not much superior to that of a blackbird; the bill is dusky, with a yellowish tip; irides pale yellow; the head and upper parts are brown, tinged with olive; the former, with the wing coverts, are spotted with white; the feathers that compose the circle round the face are white, tipped with black; under parts of the body white, spotted with brown; the tail is brown, barred transversely with rufous, and tipped with white; but in this part they are subject to vary, as Mr. Pennant and Dr. Latham both say the tail is barred with white likewise; the legs are covered with down of a grey colour; claws brown. Other varieties of this bird are also spoken of with the colours darker, as well as the irides being black. It is perhaps difficult to say what changes climate may produce. We know that season alone, in the same country, effects extraordinary changes; but we have ever held the colour of the eyes as a characteristic mark, which in adults never changes. It is true, many birds, before they arrive at maturity, have dark irides, which afterwards become yellow. This might be the case with the bird here mentioned. The peregrine falcon has been taken with yellow irides, but for the first two or three years they are dusky. A young herring gull, which we have at this time, only begins to appear yellowish in that part at two years and a half old. The eye, therefore, being subject to such a certain change by age, must be considered as the effect of maturity when it becomes of a lighter colour.

The Sparrow Owl is a very rare species in England. In France it is said to frequent ruined edifices. It makes a nest in the holes of rocks and walls, and lays five or six eggs, spotted with yellowish and white. It is said to fly by day, and to give chace to small birds; but its principal food is mice. It is said to build in chimneys in Carniola; and Mr. Edwards mentions two having been taken in England by coming down chimneys. In 1808, one was shot by Mr. Comyns, in North Devon.

SPECKLED DIVER.—A name for the young Cobble.

SPINE OF BIRDS.—*The back-bone of birds, unlike that of some other animals, is immoveable, though they have the power of bending the neck.*

SPINK.—A name for the Chaffinch.

SPOONBILL (*Platalea leucorodia*, LINNÆUS.)

Platalea leucorodia, *Linn.* Syst. 1. p. 231. 1.—*Gmel.* Syst. 2. p. 613.—*Lath.* Ind. Orn. 2. p. 667. 1.—*Temm.* Man. d'Orn. 2. p. 595.—Platea, sive Pelecanus, *Raii*, Syn. p. 102. 1.—*Will.* p. 212. t. 52.—*Briss.* 5 p 352. 1.—*Ib.* 8vo. 2. p. 300.—La Spatule, *Buff.* Ois. 7. p. 448. t. 24.—Spoonbill, or Pelican, *Albin*, 2. t. 66.—*Will.* (Angl.) p. 288. t. 5.—White Spoonbill, Br. Zool. App. t. 9.—Arct. Zool. 2. p. 441. A.—Supp. p. 66.—*Lath.* Syn. 5. p. 13. 1.—Ost. Menag. t. p. 61.—*Lewin's* Br. Birds, 4. t. 142.—*Walc.* Syn. 2. t. 123.—*Pult.* Cat. Dorset. p. 13.—*Mont.* Orn. Dict. and Supp.—*Flem.* Br. Anim. p. 94.

Weight about three pounds and a half; length two feet eight inches; the bill is near seven inches long, and three quarters of an inch broad in the narrowest part; two inches towards the point in the largest part of the spoon; colour black, sometimes brown, with an orange-coloured spot near the tip of the upper mandible; it is also crossed with several indentations and dotted protuberances; the irides in some grey, others reddish; the lore, and round the eyes and throat, the skin is bare and black. The whole plumage is white; sometimes the quills are tipped with black; the legs are black, six inches long; thighs bare about half way; toes connected by a small web, extending as far as the second joint of the outer, and first joint of the inner toe.

The Spoonbill is rarely met with in England. Mr. Pennant mentions that a flock of these birds migrated into the marshes near Yarmouth, in Norfolk, in April, 1774. We have also been assured it is sometimes seen on the coast of Devonshire in the winter. It is said to build its nest in high trees near to the sea, and to lay three or four white eggs, powdered with a few pale red spots, about the size of that of a hen.

SPOTTED DUCK.—A name for the Harlequin Duck.

SPOTTED FALCON.—A name for the Peregrine Falcon.

SPOTTED FLYCATCHER.—A name for the Beam Bird.

SPOTTED GALLINULE.—A name for the Skitty.

SPOTTED-NECKED TURTLE DOVE.—A name for the Turtle Dove.

SPOTTED SANDPIPER (*Totanus macularia*, TEMMINCK.)

Tringa macularia, *Linn.* Syst. 1. p. 249. 7.—*Gmel.* Syst. 2. p. 672.—*Lath.* Ind. Orn. 2. p. 734. 29.—*Wils.* Amer. Orn. 7. p. 66.—Turdus aquaticus, *Briss.* 5. p. 255. 20.—*Ib.* 8vo. 2. p. 275.—Totanus macularia, *Temm.* Man. d'Orn. 2. p. 656.—La Grive d'eau, *Buff.* Ois. 8. p. 140.—Spotted Tringa, *Edw.* t. 277. f. 2.—Spotted Sandpiper, Br. Zool. 2. No. 196.—*Ib.* fol. 124.—Arct. Zool. 2. No. 385.—*Lath.* Syn. 5. p. 179. 24.—*Lewin's* Br. Birds, 5. t. 173.—*Walc.* Syn. 2. t. 149.—*Bewick's* Br. Birds, 2. p. 111.—*Mont.* Orn. Dict.—*Flem.* Br. Anim. p. 103.

This species is about the size of a thrush; length eight inches; bill dusky, reddish at the base; the upper parts of the birds are of a greenish brown, marked with dusky spots on the head, of a longish form; these increase on the neck to the back, where they are much larger; the rump plain; the shoulders and wings marked with the same colour, but the spots are transverse; the under side of the body is white, marked with dusky spots; the two middle tail-feathers greenish brown, the others white, crossed with dusky lines; legs dull flesh colour. The female has none of the spots underneath, except on the throat.

In the British Zoology, it is said that the spots on the upper parts are of a triangular form and black. Said to inhabit North America, and to breed in Pensylvania and Hudson's Bay.

SPOTTED SNIPE.—A name for the Barker.

SPRAT LOON.—A name for the Young Cobble.

SPRING WAGTAIL (*Budytes flava*, CUVIER.)

* Motacilla flava, *Linn.* Syst. 1. p. 331. 12.—*Lath.* Ind. Orn. 2. p. 504. sp. 8.—*Gmel.* Syst. 1. p. 963.—Motacilla verna, *Briss.* 3. p. 468. 40.—Motacilla chrysogastra, *Bechst.* Naturg. Deut. 3. p. 446.—Bergeronette de Printemps, *Buff.* Ois. 5. p. 265. t. 14. f. 1.—*Ib.* pl. Enl. 674. f. 2.—Bergeronette printaniere, *Temm.* Man. d'Orn. 1. p. 260.—Gelbe Bachstelze, *Meyer*, Tasschenb. Deut. 1. p. 219.—*Ib.* Vög. Deut. Heft. 10. the male and female.—Geele Kwikstaart, *Sepp.* Nederl. Vög. 2. p. 103.—Yellow Wagtail, Br. Zool. 1. No. 143.—Arct. Zool. 2. p. 396. F.—*Will.* (Angl.) p. 238. t. 68.—*Edw.* t. 258.—*Lewin's* Br. Birds, 3. t. 97.—*Lath.* Syn. 4. p. 400. 6.—*Ib.* Supp. p. 179.—*Mont.* Orn. Dict. *Ib.* Supp.—*Pult.* Cat. Dorset. p. 8.—*Bewick's* Br. Birds, 1. t. p. 198.—*Flem.* Br. Anim. p. 74.—*Selby*, pl. 49. fig. 3. p. 211.*

Provincial—Summer Wagtail. Oat-seed Bird.

Weight about five drams; length six inches and a half; the bill is black; irides hazel; the upper part of the head and back of the neck pale olive green; back, scapulars, rump, and wing coverts, of the same colour, but darker; the whole under parts from chin to vent, full bright yellow; the coverts of the ears, like the upper part of the head; over the eye a yellow streak; quill-feathers dusky, those next the body, and the greater coverts, edged with yellowish white; tail dusky, the two middle feathers dashed with olive, two outer feathers on each side white full half way from the end of the second feather, and running obliquely upwards, leaves the outer web of the first entirely white; legs black; hind claw very long, and but little curved. The female is less bright in colour, the yellow underneath in some appearing almost white at a little distance.

There appears no doubt but many authors have confounded this species with the grey wagtail, which we have remarked more fully in the history of that bird.

The male of this species, it is said, possesses a few black spots on the throat, but such a mark we have never observed in more than a

hundred specimens. It must therefore be rare, if not a mistake in describing the grey wagtail for this. If no other mark of distinction were to be found but the length and straitness of the hind claw in this, it would be sufficient to know it from the grey wagtail, which is very short and crooked. The tail of this bird is also an inch shorter, and has only two feathers on each side, partly white. The under parts of the male are of a much fuller yellow, and the upper parts never possess any of the cinereous colour.

The Spring Wagtail visits us about the time the other departs, and migrates again in September. It frequents arable land, especially in the more champaign parts; sometimes uncultivated ground interspersed with furze; it is also partial to bean fields; in all such places it breeds, and does not seem to regard water so much as either of the other species. The nest is always placed on the ground, composed of dried stalks and fibres, lined with hair. The eggs are four or five in number, not very unlike those of the sedge bird, of a pale brown, sprinkled all over with a darker shade, in some very obscurely, weighing about twenty-seven grains. It has all the actions and notes of the other species; the cry is more shrill than the white, and less so than the grey wagtail, but it does not seem to have much of a song. It is said to be found in Siberia and Russia in summer, and to continue in France the whole year.

SQUACCO HERON (*Ardea Ralloides*, Scopoli.)

*Ardea Ralloides, *Scopoli*, Amer. 1. No. 12 —Ardea comata, Pallas, *Reis*, 2. p. 715. sp. 31.—*Gmel.* Syst. 1. p. 632. sp. 41.—*Lath.* Ind. Orn. 2. p. 687. sp. 39.—Ardea Squaiotta et castanea.—*Gmel.* Syst. 1. p. 634. 5. sp. 46. 47.—*Lath.* Ind. Orn. 2. p. 686. and 687. sp. 36. and 40.—Ardea Audax, *La Peyrouse*, Neue. Schwed, abh. 3. p. 106.—Le Crabier de mahou et crabier caiot, *Buff.* Ois. 7. p. 393. and 398.—*Ib.* pl. Enl. 348.—Le Crabier Gentil, *Gerard.* Tab. elem. 2. p. 137. No. 8.—Squacco Heron, and Castaneous Heron, *Lath.* Syn. 5. p. 72. and 75.—Rallen Reiher, *Bechst.* Naturg. Deut. 4. p. 47.—*Meyer*, Tasschenb. Deut. 2. p. 341.—Sgarza Ciufetto, *Stor.* degl. ucc. 4. p. 419. and 420.—*Naum.* Vög. Nacht. 22. f. 44.—*Temm.* Man. d'Orn. p. 582.

YOUNG.

Ardea Erythropus, *Gmel.* Syst. 1. p. 634. sp. 88.—*Lath.* Ind. Orn. 2. p. 686. sp. 38.—Ardea Comatea, *Simillima*, Iter. Possegan, p. 24.—Ardea Marsigli et Pumila, *Nov.* Com. Petr. 14. p. 502. t. 14. f. 1.—*Gmel.* Syst. 1. p. 637. and 644.—*Lath.* Ind. Orn. 2. p. 681. and 683. sp. 20. and 28.—Le petit Butor, *Briss.* Orn. 5. p. 542.—*Buff.* Ois. 7. p. 524.—Swabian Bittern, and Dwarf Heron, *Lath.* Syn. 3. p. 60. and 77.—*Naum.* Vög. Nachtr. t. 22. f. 45.—Freckled Heron, *Mont.* Orn. Dict.*

The length of this species is about sixteen inches: bill of a livid red colour, with a brown tip; lore greenish; irides yellow; crown of the head much crested; six of the feathers hanging quite down to the back, these are narrow, and white margined with black; the neck and breast pale ferruginous, the feathers on the first very long and loose; back ferruginous, inclining to violet, and furnished with long narrow feathers, which reach beyond the wings when closed, and fall

over them; wings, rump, tail, belly, and vent, white; the tail pretty long; legs stout, of a greenish yellow; the claw of the middle toe serrated within. The above description is from Latham, who says it was shot at Boyton, in Wiltshire, by Mr. Lambert, in 1795, who presented a drawing of it to the Linnæan Society, in 1797.

Another Heron, supposed by Fleming to be a variety of sex or age, was shot by Mr. Cunningham, at Riddleton, in Dorsetshire, and is described by Montagu, in the Supplement to his Dictionary, as the freckled heron (*Ardea lentiginosa.*) This species did not in the least accord with the descriptions of any before mentioned, nor indeed sufficiently with any he could find described, although he thought it probable it would prove a sexual distinction only of some species obscurely known, an uncertainty which still exists respecting it.

The length was about twenty-three inches. Bill two inches and three-quarters long to the feathers on the forehead, rather slender, and both mandibles equally turned to form the point; the upper part of the superior mandible dusky; sides and lower mandible greenish yellow; the head is very small; the crown is chocolate-brown, shaded to a dull yellow at the nape, where the feathers are much elongated; the chin and throat white, with a row of brown feathers down the middle; at the base of the lower mandible commences a black mark that increases on the upper part of the neck on each side, and is two inches or more in length; the cheeks are yellowish, with an obscure dusky line at the corner of the eye; the feathers on the neck are long and broad, with their webs partly unconnected; those in front are pale dull yellow, with broad chestnut streaks formed by each feather having one web of each colour, margined, however, with dull yellow on the chestnut side; some feathers have the dark mark in the middle, especially the lower ones; these are all loose as in the common bittern; those at the bottom of the neck four inches long, and hanging pendant below the breast; the hind neck is bare, and the feathers that fall over that part are pale yellow-brown; the feathers on the breast are also long, and of a fine chocolate-brown, glossed with purple, and margined with dull yellow; belly and sides the same, but not quite so bright, the brown marks becoming speckled; the vent and under tail coverts yellowish-white; the back and scapulars are chocolate-brown, with paler margins, minutely speckled and glossed with a tinge of purple in some particular lights; the coverts of the wings dull yellow, darkest in the middle of each feather, the margins prettily speckled; the first and second order of quills, their greater coverts, and the *allula spuriæ* dusky lead-colour, with a cinereous dash; the primaries very slightly tipped with brown; the secondaries and the greater coverts tipped more deeply with the

same, and prettily speckled on the light part; the tertials correspond with the lower order of scapulars, which have their margins chestnut, with small dusky lines and spots; the tail is short, and in colour similar to the tertials; the wings, when closed, do not reach to the end of the tail; the legs are three inches and three-quarters in length from the heel to the knee; the toes long and slender, the middle one, including the claw, which is three-quarters of an inch in length, and pectinated on the inner side, is as long as the leg; the claws are not much hooked, but the hind one most so, and by far the longest; their colour dusky brown; the colour of the legs, and bare space above the knee, (which last is about an inch,) appears to have been greenish.

At the time Colonel George disposed of his collection, this bird was marked in the catalogue *Ardea minuta*, and was purchased for Colonel Montagu as such. Thus an extremely rare and unknown bird in England, and apparently a nondescript, was rescued by accident from oblivion.

The astonishment of Colonel Montagu was very considerable at receiving this bird for the boonk, to which it is no ways allied either in size or colour. It is in its general appearance more like the common bittern, but not much more than half the size, and the plumage altogether much darker, and the markings extremely different; but we are not surprised that a sportsman should be mistaken in supposing it to be the common bittern, if he had not before noticed the very superior size of that species.*

SQUAUK DUCK.—A name for the Bimaculated Duck.

STANNEL.—A name for the Kestril.

STARLING (*Sturnus vulgaris*, Linnæus.)

*Sturnus vulgaris, *Linn.* Syst. 1. p. 290. 1.—*Gmel.* Syst. 1. p. 801.—*Lath.* Ind. Orn. 1. p. 321. 1.—*Raii*, Syn. p. 67. A. 1.—*Will.* p. 144. t. 37.—*Briss.* 2. p. 439. 1.—*Ib.* 8vo. 1. p. 280.—*Flem.* Br. Anim. p. 86.—Sturnus varius, *Meyer*, Tasschenb. Deut. 1. p. 208.—L'Etourneau, *Buff.* Ois. 3. p. 176. t. 15.—*Ib.* pl. Enl. 75.—L'Etourneau vulgaire, *Temm.* Man. d'Orn. 1. p. 132.—L'Etourneau Commun, *Cuv.* Reg. Anim. 1. p. 395.—Gemeiner Star. *Bechst.* Naturg. Deut. 3. p. 816.—*Frisch*, Vög. t. 217.—Stare or Starling, Br. Zool. 1. No. 104. t. 46.—Arct. Zool. 2. p. 331. A.—*Lewin's* Br. Birds, 2. t. 56.—*Lath.* Syn. 3. p. 2.—*Ib.* Supp. p. 137.—*Will.* (Angl.) p. 196. t. 37.—*Mont.* Orn. Dict.—*Pult.* Cat. Dorset. p. 8.—*Bewick's* Br. Birds, 1. p. 88.—*Ib.* App. p. 14. young.—*Low's* Faun. Orcad. p. 54.—*Selby*, pl. 36. fig. 1. p. 92.*

Weight about three ounces; length eight inches and three-quarters; the bill is not quite an inch and a half long, bluish at the base, yellow at the point, and, when opened, the gape extends far back in the head; the nostrils are surrounded by an oval prominent rim; irides hazel; the head, neck, and upper parts of the back are black, glossed with purple and green, as viewed in different lights; the feathers on the

neck are long, narrow, and pointed; the breast, lower part of the back, coverts of the wings, and rump, are black, shaded with dark green; the whole plumage, throat excepted, elegantly marked with small spots, white on the breast, and yellowish brown on the head and back; the larger quill-feathers are dusky on the inner webs, and, except the outer one, black on their exterior webs; the other quills are of a dark ash-colour, bordered with green, and the whole edged with reddish brown; the tailis short, composed of twelve feathers, much like those of the wing; legs reddish brown.

This is a plentiful species; it is found in almost every part of the old continent; many stay with us the whole year; but the vast flocks that are seen in severe winters, probably migrate to this country in search of food, and return northward in the spring. We have observed continued flights of these birds going westward into Devonshire and Cornwall, in hard weather, and returning eastward as soon as the frost breaks up. Their food is chiefly insects, but in defect of these they will eat grain. Great numbers are frequently taken in winter in our pigeon-houses, where they roost for the sake of warmth; but we believe they rarely, if ever, suck the eggs of that bird, which has been attributed to them. It will, indeed, sometimes build in such places, but more frequently in the hole of a tree, and sometimes in an old building. The nest is made of dry grass, on which it lays four or five light-blue eggs, about one dram and three-quarters in weight. The natural notes of this bird are a shrill whistle and a chattering noise; but in confinement, where it becomes very docile, it is taught to imitate the human voice, and to whistle tunes.

The flight of the Starling is not undulated, but smooth and even, and it walks or runs upon the ground like the wagtails and the larks, and is rarely observed to hop like the thrush.

"In the autumnal and hyemal months," says Selby, "these birds gather in immense flocks, and are particularly abundant in the fenny parts of Nottinghamshire and Lincolnshire, where they roost among the reeds. Before they retire to rest, they perform various manœuvres in the air, the whole frequently describing rapid revolutions round a common centre. This peculiar flight will sometimes continue for nearly half an hour, before they become finally settled for the night. Upon the approach of spring they pair, and spread themselves over the whole country."

STERNA (Linnæus.)—*Tern, a genus thus characterised. Bill as long, or longer than the head, almost straight, compressed, fringed, cutting and pointed; the mandibles of equal length, the upper slightly inclined towards the point; nostrils towards the middle of the bill, slit

lengthwise, and pierced from part to part; legs small, naked to above the knee; shank very short; four toes, the three fore ones reunited by a cut membrane, the hind toe free; claws small and arched; tail more or less forked; wings very long and pointed, the first quill the longest.*

STERN (*Sterna nigra*, LINNÆUS.)

Sterna fissipes, *Linn.* Syst. 1. p. 228. 7.—*Gmel.* Syst. 2. p. 610.—*Lath.* Ind. Orn. 2. p. 810. 23.—Sterna obscura, *Gmel.* Syst. 2. p. 608. 20.—Sterna nigra, *Briss.* 6. p. 211. 4.—*Ib.* 8vo. 2. p. 417.—*Gmel.* Syst. 1. 608. 3.—*Flem.* Br. Anim. p. 144.—*Temm.* Man. d'Orn. 2. p. 749.—Sterna nævia, *Gmel.* Syst. 1. p. 609. 5. Sterna Boysii, var. A.—*Lath.* Ind. Orn. 2. p. 806. 10.—Larus niger Gesneri, *Raii*, Syn. p. 131. A. 3.—*Will.* p. 269.—Larus niger fidipes alis longioribus, Aldr. *Raii*, Syn. p. 131. 4.—*Will.* p. 270. 5. t. 68.—Larus minor, fidipes nostras, *Raii*, Syn. p. 132. A. 6.—*Will.* p. 270. 4.—La Guifette, *Buff.* Ois. 8. p. 339.—Hirondelle de mer noire, ou l'Épouventail, *Buff.* Ois. 8. p. 341.—Lesser Sea Swallow, *Albin*, 2. 90.—Black Tern, Br. Zool. 2. No. 256.—*Ib.* fol. 145. t. L*, 1. f. 1.—Arct. Zool. 2. No. 450.—*Lath.* Syn. 6. p. 366. 22.—*Ib.* Supp. p. 267.—*Lewin's* Br. Birds, 6. t. 206.—*Walc.* Syn. 1. t. 122.—*Don.* Br. Birds, 4. t. 74.—*Bewick's* Br. Birds, 2. 203.—Brown Tern, *Lath.* Syn. 6. p. 368. 23. —*Will.* p. 382.—*Mont.* Orn. Dict.—*Ib.* Supp.—Sandwich Tern, var. A. *Lath*, Syn. 6. p. 358.

Provincial.—Cloven-footed Gull. Scare-Crow. Car Swallow.

This species is less than the common tern; weight about two ounces and three-quarters; length ten inches; bill black; irides dusky; forehead, sides of the head beneath the eyes, throat, and fore part of the neck white; the rest of the head, back of the neck, and under part of the body black; back, wings, and tail deep ash-colour; vent and under tail coverts white; the tail is less forked than in either of the other species; the outer feathers edged with white; legs dull red, the webs much indented or semipalmated. In some the forehead and fore part of the neck are mottled with black; and as most authors have omitted, or at least have not made mention of any white on the forehead, such is probably another variety. The female has no white about the head.

The Stern has all the actions and manners of the other species, but seems to prefer fresh-water fish and insects to marine. It breeds on the verge of pools in swampy places, and never, that we could trace, on the sea-shore, but frequently remote from the sea. It is found in the fenny parts of Lincolnshire and Cambridgeshire, and is called at this last place car-swallow. They are plentiful about the reedy pools on Romney Marsh, in Kent, where they first appear the latter end of April or beginning of May, and breed in the sedgy places on the verge of the pools; and though very near the sea, are rarely seen on the shores till after the breeding season, and then not commonly. It lays three or four light olive-brown eggs, blotched and spotted with brown and black, about the size of those of the magpie. On the sea-shore that bounds

the above extensive marsh, all the other species are found during the incubating season.

We observed great abundance of Sterns in the fens of Lincolnshire, during the breeding season. They make a nest of flags or broad grass in the most marshy places, upon a tuft just above the surface of the water; and the female lays, almost invariably, four eggs, weighing about three drams each.

The flight of the Stern is not very unlike that of the nightjar; its evolutions are rapid, and its turns short, by which means it sometimes escapes the talons of predaceous birds, as we had once an opportunity of witnessing. In a very hard gale of wind many Sterns were sporting over the water, when a peregrine falcon passed like a shot, singled out his bird, and presently coming up with the chase, made a pounce, but the great dexterity of the Stern avoided the deadly stroke, and took a new direction. The falcon, by his superior velocity, soon regained sufficient elevation, to successively repeat his pounces, but at last relinquished the pursuit.

*The brown tern (*Sterna obscura*) is, according to Temminck, this species in its spring and summer plumage. The breast, the space between the beak and the eyes, the throat, and front part of the neck, which are white in winter, are then of a brownish ash-colour.*

STILT (*Himantopus Melanopterus*, MEYER.)

Charadrius himantopus, *Linn.* Syst. 1. p. 255. 11.—*Gmel.* Syst. 2. p. 690.—*Lath.* Ind. Orn. 2. p. 741. 3.—Himantopus melanopterus, *Temm.* Man. d'Orn. 2. p. 528.—Himantopus, *Raii*, Syn. p. 106. 9.—190. 7.—*Ib.* 193. 1. t. 1. f. 3.—*Will.* p. 219. t. 54.—*Briss.* 5. p. 33. 1. t. 3. f. 1.—*Ib.* 8vo. 2. p. 220. 1.—*Flem.* Br. Anim. p. 112.—*Sibbald*, 18. p. 13. 2.—L'Echasse, *Buff.* Ois. 8. p. 114. t. 8.—Long-legged Plover, Br. Zool. 2. No. 209.—*Ib.* fol. 128. Addenda.—Arct. Zool. 2. No. 405.—*White's* Hist. Selb. t. p. 258.—*Lath.* Syn. 5. p. 195. 3.—*Ib.* Supp. p. 252.—*Lewin's* Br. Birds, 3. t. 182.—*Walc.* Syn. 2. t. 159.—*Don.* Br. Birds, 3. t. 55.—*Mont.* Orn. Dict.—*Ib.* Supp.

Provincial.—Longlegs. Longshanks.

This extraordinary species is certainly the longest-legged bird, in proportion to its bulk, hitherto known. Length, from the apex of the bill to the end of the tail, thirteen inches; from that to the end of the toes five inches more; bill two inches and a half long, slender, and black; irides red; forehead, round the eyes, and rump, white; crown of the head, back, and wings, glossy black; tail the same, inclining to grey; outer feathers white; neck and under parts white; the hind part of the neck marked with dusky streaks; in some these streaks are wanting, the effect probably of maturity; the thigh is bare of feathers three inches and a half from the knee; legs, four inches and a half long, red; the outer and middle toes connected by a membrane at the base.

Six of this species were shot out of seven in a flock, in the month of April, at the verge of a lake not very distant from Farnham, in Surrey. One of these was preserved by the late Rev. Mr. White, of Selborne, and is now (1802) in the possession of Mr. White, in Fleet Street, where we saw it. This bird is wholly white, except the wings and back, as far as the rump, which is black. Of this bird there is a good figure in White's Natural History of Selborne, who says it weighed, when drawn and stuffed with pepper, four ounces and a quarter.

This is a rare bird in England, but Latham informs us it is sufficiently plentiful in the East and West Indies, in Egypt, on the shores of the Caspian Sea, and in the warmer parts of America. Specimens received from the two first places, had the crown and all the hind part of the neck black. A variety of this species is given by Latham in his Supplement. One of this rare species was shot in Anglesea, in 1793.

STINT.—A name for the Dunlin.

STOCK DOVE (*Columba Ænas*, Linnæus.)

*Columba Ænas, *Linn.* Syst. 1. p. 279. 1. B.—*Gmel.* Syst. 1. p. 769. sp. 1.—*Lath.* Ind. Orn. 2. p. 589. sp. 1.—*Briss.* Orn. 1. sp. 5.—*Raii*, Syn. p. 62. A. 10.—*Will.* p. 136. t. 35.—Colombe colombin, *Temm.* Pig. et Gall. 1. p. 118.—*Ib.* edit. fol. pl. 11.—*Ib.* Man. d'Orn. 2. p. 445.—Holtz Taube, *Bechst.* Naturg. Deut. 3. p. 957.—*Meyer*, Tasschenb. Deut. 1. p. 287.—*Frisch*, Vög. t. 139.—Derbosh Duif, *Sepp.* Vög. 5. t. p. 407.—Stock Pigeon, Br. Zool. 2. App.—Arct. Zool. 2. p. 329. A.—*Will.* (Angl.) p. 185.—*Lath.* Syn. 4. p. 604. 1.—*Ib.* Supp. p. 197.—*Selby*, pl. 56 *. fig. 1. p. 290.

There can be little doubt, I think, that notwithstanding all the pains and care which Montagu took upon this subject, he confounded this species with the rock dove, (*Columba livia*, Brisson,) the distinctive mark of which is two black bands crossing the closed wings,—a constant character never seen in the Stock Dove; while the latter, also, is from one to two inches longer in the body. See Ring Dove.*

STOCK OWL.—A name for the Eagle Owl.

STOCK PIGEON.—A name for the Stock Dove.

STOMACH OF BIRDS.—The Stomach of Birds forms them into two distinct natural classes: those with cartilaginous stomachs, covered with very strong muscles, called a gizzard; and those with membranaceous stomachs, more resembling that of carnivorous quadrupeds. The former is given to birds whose principal food is grain and seeds of various kinds, or other hard substances that require much friction to comminute, to assist which, gravel is necessary; the latter is given to birds which feed upon flesh or fish, and whose digestion is accelerated more by the gastric juice than by the action of the stomach. Those of the first class digest or retain every substance swallowed; and those

which eject or disgorge innutritious matter unavoidably taken in, such as feathers, fur, bones, &c., belong to the second class; as is conspicuous in the falcon, (*Falconidæ*, LEACH,) and owl, (*Strigidæ*, LEACH,) and others that feed on fish. Granivorous birds seem to possess a power of retaining the small stones taken into the gizzard, or evacuating them when they become polished and less useful, but cannot disgorge them. In a state of nature the quantity of gravel taken in must be regulated, no doubt, by the sensation of the stomach; but, extraordinary as it may seem, in domesticated animals those instinctive faculties are deranged. We have known instances where the whole cavity of the gizzard has been filled with gravel stones. We once remember part of a brood of young ducks, half grown, taking in such a quantity of gravel, as not only filled the gizzard but the craw, and even the gullet; they soon after died. Many species of birds possess a reservoir for food, called a craw, or crop, which seems to answer the same purpose as the first stomach in ruminating animals. Here it is that the food is softened and prepared for the stomach, or carried to the young.

*An author in the Philosophical Transactions for 1810, maintains that grass requires the strongest digestive powers; but it is probable that, in ruminating animals, by a second mastication, the food is better prepared, by its extreme comminution, to yield more expeditiously its nutrimental contents than can be effected in the stomach of a horse, who has not the power of grinding his food a second time, the mastication of which is imperfectly performed, and coarsely submitted to the organs of digestion. Comminution of graminous food appears to be more essential, in the opinion of this author, than any other power nature has assigned for the purpose of digestion. With this view, he seems to have examined the gizzard of such birds as are in the habit of grazing, in order to compare them with the same organ belonging to birds that are not considered as graminivorous; and we are told a marked distinction appeared between the goose and the turkey. We are informed the stomach of the turkey is altogether less muscular; its parts appear to possess less motion on each other, and do not come in contact; whereas, in the goose, the muscular fasciculi are peculiarly powerful, and the opposite sides move on each other, and rub down the food, very much like the manner in which this is done by the grinding teeth of ruminating animals.

With all due deference to the professional abilities of this writer, we must take leave to remark, that the comparison between the two birds in question is by no means conclusive, since they are both equally graminivorous and granivorous; for the turkey by nature, in its native

transatlantic wilds, subsists entirely on plants for three-fourths of the year, and in a domestic state requires no other food.

It is true both the turkey and the goose greedily devour grain, and various other seeds occasionally, and appear to prefer it; and, consequently, we may reasonably conclude, nature has given them both muscular gizzards, not for the purpose of grinding herbaceous food, but to triturate and comminute substances that may occasionally offer themselves, and which must otherwise cause a stoppage, or pass off undigested, as corn is commonly observed to do with horses, if it is not broken by the grinding teeth.

Had this anatomical writer examined the stomach of a truly graminivorous bird, we have no doubt he would not have considered that a superior muscular strength in the stomach was necessary for the comminution of herbaceous food, since (as we have noticed) the stomach of the little bustard appears to be divested of sufficient muscular action to comminute its food by compression. From the structure of the stomach of this bird, which is one of the very few that is truly graminivorous, we are naturally led to conclude, that the leaves and tenderer parts of plants are readily macerated, and prepared in the stomach, by the conjoint action of the gastric juice and the animal heat, more than by friction. The vast distention of the stomach in this bird, charged with such a large quantity of herbaceous food, rendered it impossible for the coats of the stomach to come sufficiently near to perform attrition; nor were there any gravel stones perceived, to assist such action. May we not, therefore, fairly infer, that grass and other herbs are, under certain circumstances, rendered easy of digestion, and yield their utmost possible nutriment without trituration in the stomach? The stomach of the little bustard is not furnished with that strong cartilaginous substance apparent in more omnivorous birds, and, in particular, those who occasionally feed on grain and other hard substances, that require breaking and comminuting by strong muscular pressure and friction; but is more analogous to that of carnivorous birds, except that it is vastly superior in size. The stomach of the capercalzie (*Tetrao urogallus,*) and other species of the same genus we have examined, are very similar to that of the turkey; and these feed principally on the tops of heath, birch, pine, and other green vegetables; but as these are not tender, but of a ligneous quality, their stomachs are always found to contain a large portion of gravel, or grit, in order to facilitate the comminution of their food.

Why grass and other green vegetables should not be dissolved or comminuted in the stomach of carnivorous birds and quadrupeds, as well as

in graminivorous, is a matter worthy the attention of the enlightened anatomist we have here referred to, since we find that the stomach of those birds which are truly graminivorous, have no more muscular power than that of a carnivorous or piscivorous bird.

What, then, causes the digestive faculties in the former to be so much more powerful (for these can digest flesh and even bone to a certain degree, as well as grass) than those of the latter, who are incapable of decomposing such, although the dissolution of the hardest bones is affected by the solvent powers of the fluid secretion in the stomach of some? This is daily exemplified in the dog, who either ejects the grass, medicinally taken into the stomach, or passes it whole and unaltered through the intestinal canal, and yet converts into nourishment the most solid bone.*

STONE CHACKER.—A name for the Wheatear.

STONECHAT.—A name for the Chick Stone.

STONE CURLEW (*Oedicnemus crepitans*, Temminck.)

Otis Oedicnemus, *Lath.* Ind. Orn. 2. p. 661. sp. 11.—Charadrius Oedicnemus, *Gmel.* Syst. 1. p. 689. sp. 10.—Grand Pluvier ou Courtis de Terre, *Buff.* Ois. 8. p. 105. t. 7.—*Ib.* pl. Enl. 919.—*Gerard*, Tab. élém. 2. p. 173.—Lerchingrave Regenpfeifer, *Bechst.* Tasschenb. Deut. 2. p. 317.—Grosser Brachvögel, *Naum.* Vög. Deut. t. 9. fig. 13.—*Frisch*, t. 215.—Il cran Rivere, *Stor.* degl. Ucc. 5. p. t. 472.—Thick-kneed Bustard, *Lath.* Syn. 4. p. 806.—Stone Curlew, *Albin*, Br. Birds, 1. t. 69.—Br. Zool. 1. No. 100.—*Ib.* fol. 127.—*White's* Hist. Selb. 4to. p. 43. royal 18mo. 51. 52. and 128.—*Lewin's* Br. Birds, 4. t. 141.—*Walc.* Syn. 2. t. 163.

Provincial.—Norfolk Plover.

The weight of this species is about seventeen ounces; length eighteen inches; the bill is almost two inches long, dusky at the point, yellow at the base; irides and orbits pale yellow; behind the eye a small space bare of feathers, of a yellowish-green, mostly concealed by the ear coverts; the feathers on the head, neck, and whole upper parts, dusky down their middle, deeply bordered with pale tawny-brown; above and beneath the eye is a pale stroke; a band of the same across the coverts of the wings; the quills black; the two first marked with a broad bar of white across each web; the seventh and eighth slightly tipped with white; breast and belly yellowish-white, the former marked with longitudinal dusky streaks; the tail consists of twelve feathers deeply tipped with black, except the two middle ones; the three outer are barred with black and white, the others with brown; legs long, yellow; toes short; the outer toe connected to the middle one, as far as the first joint, by a membrane; claws black.

This is a migrative species, making its first appearance with us the latter end of April, or beginning of May, when the male is heard to make a very loud shrill note, particularly in the dusk of the evening.

Mr. White mentions having heard their cry as early as the 27th of February, 1788. It frequents open hilly situations, mostly large corn-fields, heaths, or warrens. It makes no nest, but lays two eggs on the bare ground; these are of a light-brown colour, blotched and streaked with dusky; their weight about an ounce and a half; their food is principally insects and worms, but they are said to devour mice, frogs, and toads. In the autumn they assemble in small flocks, preparatory to their departure, and are seldom seen with us after the beginning of October. We do not recollect having seen this bird in the north of England, nor in the western counties further than Dorsetshire; but it is not uncommon in many of the southern and eastern parts.

STONEGALL.—A name for the Kestrel.

STONE PLOVER.—A name for the Red Godwit.

STONE SMITH.—A name for the Chickstone.

STORK (*Ciconia alba*, Belon.)

Ardea Ciconia, *Linn.* Syst. 1. p. 235. 7.—*Gmel.* Syst. 2. p. 622.—*Raii*, Syn. p. 97. A. 1.—*Will.* p. 210. t. 52.—*Lath.* Ind. Orn. 2. p. 676. 9.—*Briss.* 5. p. 365. 2. t. 32.—*Ib.* 8vo. 2. p. 305.—Ciconia alba, *Temm.* Man. d'Orn. 2. p. 561.—*Flem.* Br. Anim. p. 97.—Cicogne blanche, *Buff.* Ois. 7. p. 253. t. 12.—White Stork, Arct. Zool. p. 455. C.—*Will.* (Angl.) p. 286. t. 52.—*Albin*, 2. t. 64.—*Lath.* Syn. 5. p. 47.—*Ib.* Supp. p. 234.—*Lewin's* Br. Birds, 4. t. 144.—*Walc.* Syn. 2. t. 125.—*Mont.* Orn. Dict.—*Ib.* Supp.—*Bewick's* Br. Birds, 2. p. 32.—*Wood*, Zool. Jour. 1. p. 519.

A species about the size of a turkey. Length three feet three inches; the bill is seven inches three-quarters long, of a fine red colour; the plumage is wholly white, except some of the scapulars, the greater coverts, and quill feathers, which are black; the orbits of the eyes are bare and blackish; the skin, legs, and bare part of the thighs, are red. The sexes are alike. This bird is rarely met with in England. Several instances, however, are on record; one was killed at Salisbury in February, 1790; and another was shot at Sandwich, in Kent, in the year 1805; unfortunately only the head and legs of this specimen were saved, and are now in our possession, giving a proof of the fact. Another Stork was shot in Hampshire, in the autumn of 1808, by the game-keeper belonging to Major Guiton. The Major had seen the bird in the morning, and shot at it without effect, being at too great a distance; in the evening it was observed by the keeper, perched upon the top of a house, where it was shot. The same bird, probably, had been noticed by some husbandmen several times for the preceding fortnight, contiguous to the place where it was shot. The Stork is a bird of passage, covering a vast extent of territory in its annual migration from Persia and other parts of Asia and Africa, into the northern parts of Europe, as far as Sweden, and in the lower parts of

Russia; spreading into Holland, and into Spain, especially about Seville.

STORM COCK.—A name for the Missel Thrush.

STORM FINCH.—A name for the Petrel.

STORMY PETREL.—A name for the Petrel.

STRANEY.—A name for the Guillemot.

STRAWSMEER.—A name for the Yellow Wren.

STRIGIDÆ (LEACH.)—*Owls, a group of birds of prey (*Raptores*, ILLIGER.)*

STRIX (AUCTORES.)—*Barn Owl, a genus distinguished from the other Owls, (*Strigidæ*, LEACH,) by the lower part of the shanks and toes being thinly clothed with white hairs.*

STURNIDÆ (VIGORS.)—* Starlings, a family of perchers (*Insessores*, VIGORS.)*

STURNUS (LINNÆUS)—*Starling, a genus thus characterised. Bill strait, depressed, rather obtuse, and slightly awl-shaped, the base of the upper mandible advancing upon the front; the point depressed; nostrils at the sides of the base, and partly closed by a prominent rim; wings long, the first feather very short, the second and third the longest in the wing, and of nearly equal length; feet with three toes before and one behind, the middle toe being united to the outer one as far as the first joint.*

SULA.—A name for the Gannet.

SUMMER SNIPE.—A name for the Sandpiper.

SWALLOW (*Hirundo*, AUCTORES.)—A genus of perchers (*Insessores*, VIGORS,) of which we have three species natives: the Bank, the Chimney, and the Window, Swallow.

SWALLOW TAILED SHELDRAKE.—A name for the Sarcelle,

SWAN (*Cygnus*, RAY.)—A genus of swimmers (*Natatores*, ILLIGER,) of which we have the Wild, and the Tame, Swan.

SWIFT (*Cypselus murarius*, TEMMINCK.)

*Cypselus murarius, *Temm.* Man. d'Orn. 1. p. 434.—Cypselus Apus, *Flem.* Br. Anim. p. 61.—Hirundo Apus, *Linn.* Syst. 1. p. 344. 6.—*Gmel.* Syst. 1. p. 1020. sp. 6.—*Lath.* Ind. Orn. 1. p. 582. sp. 32.—Fauna Suec. No. 272.—*Raii*, Syn. p. 72. A. 4.—*Will.* p. 156. t. 39.—*Briss.* 2. p. 512. 15.—*Ib.* 8vo. 1. p. 301.—*Forster*, Swallows, p. 79.—Micropus murarius, *Meyer*, Tasschenb. Deut. 1. p. 281.—Brachipus murarius, *Ib.* Vög. Liv. und Esthl. 143.—Le Martinet noir ou Grand Martinet, *Buff.* Ois. 6. p. 643.—*Ib.* pl. Enl. 542. f. 2.—*Temm.* Man. d'Orn. 1. p. 434.—Thurm-schwalbe, *Bechst.* Naturg. Deut. 3. p. 929.—*Frisch*, Vög. t. 17. f. 1.—*Meyer*, Vög. 1. Heft. 4.—Swift, Br. Zool. No. 171. t. 57.—Arct. Zool. 2. No. 334.—*Will.* (Angl.) p. 214.—*Albin*, 2. t. 55.—*Lewin's* Br. Birds, 3. t. 126.—*Lath.* Syn. 4. p. 584. 34.—*Pult.* Cat. Dorset. p. 13.—*Mont.* Orn. Dict.—*Walc.* Syn. t. 254.—*Bewick's* Br. Birds, 1. p. 259.—*Selby*, pl. 42. fig. 4. p. 133.

Provincial.—Screech, or Screech Martin. Black Martin. Cran.*

This species is nearly an ounce in weight; length near eight inches; breadth about eighteen; the bill is black; irides dusky; the whole plumage is black, except the chin, which is whitish; the wings are extremely long in proportion, and the legs so short that it rises from the ground with difficulty; the tail is forked; legs and toes black. It has four toes, all placed forward. In this particular it deviates from one of the characters of the swallow genus.

The Swift makes its appearance with us later than either of the other species; seldom is seen till May; frequents steeples, towers, and other lofty buildings, in the holes of which it makes its nest; but will sometimes build under the tiles of houses and barns. The nest is made of dried grass, lined with feathers, which the birds collect on the wing, sweeping it off the ground in a dexterous manner; for it rarely alights on the ground for any purpose. Like the swallow, it sips the water as it skims over the surface, and at the same time picks up flies therefrom. It lays only two white eggs (Temminck says four) of an oblong shape, larger than that of the swallow; and while the female is sitting the male is continually flying to and from the spot, making a screeching noise, which is the only note it has. At night both sit upon the nest, or at least roost in the same hole. "The Swift," says Mr. White, of Selborne, "is very defective in architecture, making no crust or shell for its nest, but forming it of dry grasses and feathers, very rudely and inartificially put together, and with all my attention to these birds, I have never been able to discover one in the act of carrying in materials; so that I have suspected that they sometimes usurp those of the house sparrow, and expel them as sparrows do meadow and bank swallows.

In very warm weather these birds soar to a great height, but in cold or moist weather fly low in search of flies and other winged insects, which at that time cannot ascend.

* "It has been remarked," says Selby, "that these birds delight in sultry weather, with approaching thunder storms, at such times flying in small parties, with peculiar violence, and as they pass near steeples, towers, or corners of buildings, uttering loud screams, which White, in his Natural History of Selborne, supposes to be a sort of serenade to their respective females. This is fanciful and pretty; but I should rather be inclined to reason the opposite way, and to consider this action and cry as the consequences of irritability, excited by the highly electrical state of the atmosphere at such times. The shortness of the legs, and the great length of the wings, render the Swift unable to rise from an even surface; it is therefore (as if conscious of such inability) never seen to alight on the ground. It can, however, fix itself with

ease against the perpendicular face of walls or rocks, by means of its strong toes and hooked claws, which are disposed in a totally different manner from those of all other genera." *

By the middle of August these wholly disappear, which is a month or six weeks before the other species. It is said to inhabit the greater part of the old continent, and has been found in some parts of America, and at the Cape of Good Hope.

SWIMMING OF BIRDS.— The superior velocity with which aquatic birds swim under water has not wholly escaped notice; but it is not entirely produced by the action of the wings, which are sometimes used as fins to accelerate the motion, but is occasioned by the pressure of the water above. In swimming on the surface, a bird has two motions; one upward, the other forward, at every stroke of the feet; so that when covered with water, that force which was lost by the upward motion is all directed to the progressive, by which it is enabled to pursue its prey, or to escape an enemy with incredible speed. The otter and water rat swim much faster under water than they do upon the surface.

SWINE PIPE.—A name for the Red Wing.

SYLVIA (Latham.)—*Warbler, a genus thus characterised. Bill slender, rather awl-shaped, and straight; but with the point of the upper mandible slightly bent and notched; lower mandible straight; base more high than broad; nostrils at the sides of the base oval, and partly covered with a membrane: legs having the shank longer than the middle toe; toes three before and one behind, the outer toe being joined at its base to the middle one; wings with the first quill very short, sometimes indeed wanting; the second and third nearly of equal length; wing coverts and scapulars short. *

SYLVIADÆ (Vigors.)—Warbler kind, a family of Perchers, (*Insessores*, Vigors.)

Teal.

TANTALUS (Linnæus.)—Ibis, a genus of Birds, of which only one species is found in this country.

TARROCK.—A name for the Gull in its immature plumage.

TARSE.—A name for the Male Falcon, used in falconry.

TAWNY BUNTING.—A name for the young of the Snow Fleck.

TAWNY OWL (*Strix aluco*, Meyer.)

OLD MALE.

Strix Aluco, *Meyer*, Tasschenb. Deut. 1. p. 76.—Strix Stridula, *Flem.* Br. Anim. p. 57.—Chouette Hulotte, *Temm.* Man. d'Orn. 1. p. 89.—Nacht-kaute, *Bechst.* Naturg. Deut. 2. p. 910.—Tawny Owl. *Mont.* Orn. Dict.—*Bewick's* Br. Birds. Strix Aluco, *Linn.* 1. p. 130. 7.—*Gmel.* Syst. 1. p. 292. sp. 7.—*Lath.* Ind. Orn. 1. p. 59. 26.—Ulula, *Briss.* 1. p. 507. 3.—*Will.* p. 68. t. 13.—Aluco, *Will.* 68.—*Ib.* (Angl.) p. 104. t. 13.—La Hulotte, *Buff.* Ois. 1. p. 358.—*Ib.* Pl. Enl. 441.—Aluco Owl, *Lath.* Syn. p. 134. 20.—Brown Owl, *Penn.* Br. Zool. No. 69. t. 32.—*Lewin's* Br. Birds, 1. t. 28.—*Selby*, pl. 25. p. 62.

FEMALE.

Strix stridula, *Linn.* Syst. 1. p. 133. 9.—*Gmel.* Syst. 1. p. 133.—*Lath.* Ind. Orn. 1. p. 58. 25.—Strix Aldrov. *Raii*, Syn. p. 25. A.—*Will.* p. 65. t. 14.—Le Chat haunt, *Buff.* Ois. 1. p. 362. t. 25.—Pl. Enl. 437.—Common Brown or Ivy Owl, *Will.* (Angl.) p. 102. t. 14.—Tawny Owl, Br. Zool. 1. No. 68.—*Lewin's* Br. Birds, 1. t. 27.—*Lath.* Syn. 1. p. 139. 27.—Wood Owl, *Shaw's* Zool. 7. p. 253.

Provincial.—Jenny Howlet. Ivy Owl.

The length of this species is fifteen inches; weight about nineteen ounces; the bill is light brown; irides dusky; the feathers round the

bill are white and narrow; those between the bill and eyes have black shafts; the general plumage of the bird is deep tawny, darkest on the head, and brightest on the breast, streaked, and in some parts speckled with black; the feathers on the belly are tawny, with white margins, and a black streak down the shafts; the exterior webs of the outer scapulars are white, and a few of the exterior greater coverts of the secondary quills are marked with a white spot on their outer webs; these form two obscure blotches of white; the quill-feathers are barred with light tawny brown and dusky, the light colour gradually changing to white at the base; the two middle feathers of the tail are like the rump, plain tawny; the rest are more or less barred alternately with tawny and dusky; the legs are well clothed with grey feathers, or rather down, speckled with brown; claws dusky. This is the description of the female. The male only differs in size; the length is thirteen inches; weight between fifteen and sixteen ounces. The plumage of the sexes are exactly alike, but the female is most commonly less tawny; in which state it has been made a distinct species.

This is by far the most plentiful species of owl in England. It resides chiefly in woods and plantations of fir, concealing itself in the thickest places: sometimes it settles on the ground, but on being disturbed takes shelter in a neighbouring tree. It is rarely seen on wing by day, except forced from its haunts. The light is very offensive to it, and in the sun it can scarcely see at all; so defective is it of sight in a bright day, that it is no uncommon thing for boys to hunt it down with sticks and stones. The eye is much larger than any other of the British species, and the pupil incapable of sufficient contraction to enable it to see distinctly by daylight.

This bird breeds in the hollows of trees, and sometimes in barns, which last it frequents for the sake of mice; and as it is a better mouser than the cat, the farmer holds it in great estimation, and leaves a hole in his barns and granary for its egress.

It prepares very little nest, and sometimes deposits its eggs on the decayed wood: these are two in number, and rarely three, of a dull white, not glossy, and of a roundish form. The young, which are covered with a light coloured down, are at first very shy, but soon become tame if fed by hand. If put out of doors within the hearing of the parent birds, they retain their native shyness, as the old ones visit them at night, and supply them with ample provision; amongst which we have found young hares, young rats, and mice; but the last is their principal food.

We have taken these birds in their mature state as well as young, and found no difficulty in either case in preserving them alive. They were

never observed to drink; and indeed for many months together had no water offered them.

This is the only species known to hoot; besides which it makes a disagreeable screaming noise. It is a great destroyer of young pigeons, and frequently resorts to pigeon-houses for that purpose.

We are glad to find that Dr. Latham is of opinion with us, that the brown owl does not constitute a distinct species. What seems to have puzzled our scientific friend in the former part of his works, was the drawing of an owl, sent to him by Mr. Pennant, which had yellow irides, and was called Tawny Owl. No such bird, however, exists in England, and we must therefore suppose that the figure had been taken from a preserved specimen in some collection, and might really have been the true Tawny Owl of this country; but, unfortunately, it is too frequently the case, that persons employed to stuff birds, put in any eyes that may be handy, or perhaps that they think most attractive, without regard to science.

TEAL (*Querquedula crecca*, STEPHENS.)

Anas Crecca, *Linn.* Syst. 1. p. 204. 33.—*Gmel.* Syst. 2. p. 532.—*Lath.* Ind. Orn. 2. p. 872. 100.—*Flem.* Br. Anim. p. 125.—*Temm.* Man. d'Orn. 2. p. 846.—Querquedula secunda Aldr. *Raii*, Syn. p. 147. A. 6.—*Ib.* 192. 14.—*Ib.* 148. 9. fem.—*Will.* p. 290. t. 74.—Querquedula Crecca, *Steph.*—Querquedula minor, *Briss.* 6. p. 436. 32. t. 40. f. 1.—*Ib.* 8vo. 2. p. 475.—Petite Sarcelle, *Buff.* Ois. 9. p. 265. t. 17. 18.—Common Teal, Br. Zool. 2. No. 290.—*Ib.* fol. t. Addend. Arct. Zool. 2. p. 577. P.—*Will.* (Angl.) p. 6. t. 74.—*Albin*, 1. t. 100.—*Haye's* Br. Birds, t. 29.—*Lath.* Syn. 6. p. 551. 88.—Supp. p. 276.—*Lewin's* Br. Birds, 7. t. 260.—*Walc.* Syn. 1. t. 76.—*Pult.* Cat. Dorset. p. 21.—*Wilson's* Amer. Orn. 8. p. 101.—*Bewick's* Br. Birds, p. 376.

This species of duck weighs about twelve ounces; length fourteen inches and a half. The bill is black; irides light hazel; head and neck bay; on the side of the head a green patch passing backwards, bordered beneath with a whitish line; the lower part of the hind neck, upper part of the back, and part of the scapulars, as well as the sides of the body, a mixture of black and white in fine undulated lines; lower part of the neck before and breast whitish, marked with roundish spots of black; belly of the same colour, without spots; vent black, bounded with buff colour; wing coverts brown; quills dusky; some of the secondaries wholly black, and others glossy green, on their outer webs, forming a speculum on the wing; the coverts immediately over these are tipt with white; the tail is cuneiform, consisting of sixteen brown feathers, edged with whitish; legs dusky brown.

The female has the head, neck, back, and sides of the body, brown, the feathers more or less edged with whitish; belly and vent white; speculum in the wing like the male.

The male of this species has a bony labyrinth in the lower part of

the windpipe. The Teal is the smallest of the duck tribe. It comes to us in winter, and frequents our fresh waters in small flocks. Many are caught in the decoys; and some few breed with us.

*Mr. White, in his Natural History of Selborne, mentions young Teal having been taken on the verge of a pond in Wolmer Forest. It is also said to breed in the mosses about Carlisle; and we are informed they have been known to breed in confinement.

The nest is uncommon in France, its breeding grounds being more towards the North. It is made of rushes, lined with down, placed on the side of a pond, so as to rise or fall with the water. The eggs are about the size of those of a pigeon, of a dirty white, spotted with brown. This bird, like most of the duck tribe, is subject to variety, which has occasioned it to be divided into two or three species, to one of which has been given the name of summer teal.

TERN (*Sterna hirundo*, Linnæus.)

Sterna Hirundo, *Gmel.* Syst. 1. p. 606.—*Lath.* Ind. Orn. 2. p. 807.—*Wils.* Amer. Orn. 7. p. 76.—*Flem.* Br. Anim. p. 143.—L'Hirondelle de mer Pierre Garin, *Buff.* Ois. 8. p. 331.—*Ib.* pl. Enl. 987.—*Temm.* Man. d'Orn. 2. p. 740.—*Gerard.* Tab. élém. 2. p. 322.—Greater Tern, *Lath.* Syn. 6. p. 361.—*Penn.* Br. Zool. p. 144.—Germine Meerschivalbe, *Bechst.* Naturg. Deut. 4. p. 682.—Hirundo Marina, *Will.* p. 268.—Common, or Greater Tern, Br. Zool. 2. No. 254. t. 90.—*Ib.* fol. 144. t. L*.—*Lath.* Syn. 6. p. 361. 14.—*Lewin's* Br. Birds, 6. t. 204.—*Walc.* Syn. 1. t. 119.—*Don.* Br. Birds, 1. t. 23.—*Pult.* Cat. Dorset. p. 18.—Kamtschatkan Tern, Arct. Zool. 2. p. 525.—Phil. Trans. 62. p. 421.—*Bewick's* Br. Birds, 2. p. 207.—Common Tern, *Ib.* t. p. 199.

Provincial.—Pirr. Gull-teazer. Kirmew. Picket. Tarney, or Pictarney. Tarrock, or Tarret. Rittock, or Rippock. Spurre. Scraye.

The weight of this species is about four ounces and a quarter; length fourteen inches; bill two inches and a half long; of a crimson colour, black at the end, and very sharp-pointed; irides dusky; the top of the head, taking in the eyes and nape, black; beneath the eyes, and from thence to the nostrils, the neck, and all the under parts, white; the back and wings are ash-colour; quills grey; the outer ones darkest, shafts white; tail much forked, and white, except the outer web of the exterior feather, which is black; legs crimson; claws black.

Of the four species of Tern which visit this country in spring, this is the most plentiful. It frequents our flat, sandy, or shingly shores, preferring the latter; amongst which it lays three or four eggs, without any nest. These are about the size of a pigeon's, of an olivaceous brown, blotched and spotted with dusky.

It is found in great abundance on part of the Sussex and Kentish coasts, particularly about Winchelsea, and from thence to Dungeness; it is a noisy, restless bird, constantly on wing in search of insects and small

fish, after which it darts into the water with great force, seizes them, and instantly returns; for though it is web-footed, it is never seen to swim or dive. It is commonly known by the name of sea swallow, from its actions on wing being similar to that bird. On the south coast of Devonshire it is called gull-teazer, as it is frequently seen to pursue and persecute the lesser gulls till they disgorge, which it dexterously catches before it reaches the water. Whether this property is common to the other species we have not been able to ascertain; but in general their manners and habits are very similar; none of which have ever been observed to settle on the water. This is sometimes, on its first arrival, found skimming over fresh-water rivers and lakes for a few days; but we do not find that they breed in such places in England. It is found in most of the northern parts of Europe during the breeding season, even as far as Greenland and Spitzbergen, as well as North America, where in New England it is called mackarel gull; and at Hudson's Bay is known by the name of black-head. Mr. Pennant calls it the greater tern. The young birds are mottled with brown and white.

TETRAO (Linnæus.)—*Grous, a genus thus characterised. Bill short and strong, the upper mandible convex, and arched from the base to the tip; nostrils at the sides of the base partly closed by a small arched scale, and hidden from view by small closely-set feathers; eyebrows naked, and adorned with a red papillose and fringed skin; wings short, the first quill being much inferior in length to the second, which is shorter than the third and fourth; tail of sixteen or eighteen feathers; legs, with the feet having three toes before united as far as the first joint, and one toe behind short, the edges of all of them fringed or furnished with rough prominences; shanks feathered to the toes, and in some species to the claws. *

TETRAONIDÆ (Leach.)—*Grous, a family of birds which scratch in the ground for their food (*Rasores*, Illiger.)*

THICK-KNEED BUSTARD.—A name for the Stone Curlew.

THISTLE FINCH.—A name for the Goldfinch.

THROSTLE COCK.—A name for the Thrush.

THRUSH (*Turdus musicus*, Linnæus.)

* Turdus musicus, *Linn.* Syst. 1. p. 292. 2.—*Gmel.* Syst. 1. p. 809.—*Lath.* Ind. Orn. 1. p. 327. *Raii*, Syn. p. 64. A. 2.—*Will.* p. 138. 37.—Turdus minor, *Briss.* 2. p. 205. 2.—La Grive, *Buff.* Ois. 3. p. 280.—*Ib.* pl. Enl. 406.—Merle Grive, *Temm.* Man. d'Orn. 1. p. 164.—Sing-Drossel, *Bechst.* Naturg. Deut. 3. p. 349.—*Meyer*, Tasschenb. Deut. 1. p. 195.—*Frisch*, Vög. t. 27. f. 1. Throstle, or Song Thrush, Br. Zool. 1. No. 107.—Arct. Zool. 2. p. 342.—*Albin*, 1. t. 34.—*Lewin's* Br. Birds, 2. t. 58.—*Lath.* Syn. 3. p. 18. 2.—*Ib.* Supp. p. 139.—*Mont.* Orn. Dict.—*Walc.* Syn. 2. t. 198.—*Pult.* Cat. Dorset. p. 10.—

Bewick's Br. Birds, 1. p. 100.—*Low's* Fauna Orcad. p. 57.—*Shaw's* Zool. 10. p. 174.—*Flem.* Br. Anim. p. 64.—*Syme*, p. 45.—*Selby*, pl. 45. fig. 2. p. 154.

Provincial.—Mavis. Throstle Cock. Grey Bird.*

This species weighs about three ounces; length nine inches. The bill is nearly an inch long, dusky, the under mandible yellowish at the base; irides hazel; the head and upper parts are yellowish-brown, with a few dusky lines; the throat, neck, and sides yellowish; breast and belly white, elegantly spotted on the former with triangular dusky spots, somewhat resembling arrow-heads pointing upwards; the under coverts of the wings dull orange-yellow; legs light brown.

This well-known bird is admired by every one for its song. Every wood and grove re-echoes with its melodious notes in the spring, frequently beginning its tuneful lays as early as February, if the weather is mild, contending with the missel in its love-strained notes. As the song is a prelude to incubation, so this species makes its nest in March, composed of dried grass and green moss externally, and plastered within with rotten wood, mixed with cow-dung or clay, which is so compact as to hold water, and sometimes proves fatal to their eggs, for in a rainy season we have often found it full. It lays four or five blue eggs, spotted with black at the larger end; their weight from eighty to ninety grains. The nest is placed sometimes on a stool or stump of a tree, very near the ground, or against the side of a tree, and frequently in a hedge or solitary bush.

The Thrush remains in England the whole year, but is supposed to quit the more northern parts in winter. It is not, however, gregarious with us at any time, although it has been observed to pass through Livonia, Courland, and Prussia, together with the missel and fieldfares, in prodigious quantities, about Michaelmas, in their flight to the Alps. It is said to be migratory in France, visiting Burgundy when the grapes are ripe, and doing great damage to the vineyards. In various parts of England it is known by the names of song thrush, mavis, and grey-bird.

A species of Thrush has been mentioned under the denomination of heath throstle; it is said to have the breast darker and the tail shorter than this bird; but we have not sufficient grounds to believe it is distinct from this.

The food of the Thrush is insects and berries of various kinds; but it is particularly fond of shell snails, especially the *Helix nemoralis*, which it breaks by reiterated strokes against some stone. It is not uncommon to find a great quantity of fragment shells together, as if brought to one particular stone for that purpose.

*No writer, with whom I am acquainted, has taken notice of the singular ingenuity of the workmanship of the Thrush's nest. Interiorly it is about the form and size of a large breakfast tea-cup, being as uniformly rounded, and, though not polished, almost as smooth. For this little cup the parent-birds lay a massive foundation of moss, chiefly the proliferous and the fern-leaved feather moss, (*Hypnum proliferum*, and *H. filicinum*,) or any other which is sufficiently tufted. As the structure advances, the tufts of moss are brought into a rounded wall by means of grass stems, wheat, straw, or roots, which are twined with it and with one another up to the brim of the cup, where a thicker band of the same materials is hooped round like the mouth of a basket. The rounded form of this frame-work is produced by the bird measuring it, at every step of the process, with its body, particularly with the part extending from the thigh to the chin; and when any of the straws or other materials will not readily conform to this guage, they are carefully glued into their proper places by means of saliva, a circumstance which may be seen in many parts of the same nest if carefully examined. When the shell, as it may be called, is completed in this manner, the bird begins the interior masonry by spreading pellets of horse or cow-dung on the basket-work of moss and straw, beginning at the bottom, which is intended to be the thickest, and proceeding gradually from the central point. This material, however, is too dry to adhere of itself with sufficient firmness to the moss, and on this account it is always laid on with the saliva of the bird as a cement; yet it must require no little patience in the little architect to lay it on so very smoothly, with no other implement than its narrow-pointed bill. It would, indeed, puzzle any of our best workmen to work so uniformly smooth with such a tool; but from the frame being nicely prepared, and by using only small pellets at a time, which are spread out with the upper part of the bill, the work is rendered easier. That it is horse-dung which is preferred for this purpose, (though we have also seen cow-dung used,) may be easily ascertained, by comparing a piece of the dry droppings found in pastures with the inner wall of the nest, which, like dry horse-dung, returns no smell, whereas cow-dung, though exposed to the sun for months, continues to retain a musky smell, very similar to Indian ink.

On this wall being finished, the birds employ, for the inner coating, little short slips of rotten wood, chiefly that of the willow; and these are firmly glued on with the same salivary cement, while they are bruised flat at the same time, so as to correspond with the smoothness of the surface over which they are laid. This final coating, however,

is seldom extended quite so high as the first, and neither of them are carried quite to the brim of the nest; the birds thinking it enough to bring their masonry near to the twisted band of grass which forms the mouth. The whole wall, when finished, is not much thicker than pasteboard, and, though hard, tough, and water-tight, is more warm and comfortable than at first view might appear, and admirably calculated for protecting the eggs or young from the bleak winds which prevail in the early part of the spring, when the song thrush breeds.[1*]

TIDLEY GOLDFINCH.—A name for the Golden-crested Wren.

TIDLEY.—A name for the Wren.

TINKER'S HUE.—A name for the Guillemot.

TIPPET GREBE.—The young of the Gaunt.

TIT (*Parus*, Linnæus.)—A genus of Perchers (*Insessores*, Vigors.)

TITLARK.—A name for the Meadow Pipit.

TITLING.—A name for the Meadow Pipit and Hedge Chaunter.

TITMOUSE.—A popular name for the Tits.

TOMMY or TAMMY NORIE.—A name for the Coulterneb.

TOMTIT (*Parus cæruleus*, Ray.)

*Parus cæruleus, *Linn.* Syst. 1. p. 341. 5.—*Gmel.* Syst. 2. p. 1008.—*Raii*, Syn. p. 74. A. 4.—*Will.* p. 175. t. 43.—*Lath.* Ind. Orn. 2. p. 566. 12.—*Briss.* 3. p. 544. 2.—*Ib.* 8vo. 1. p. 462.—Blaumeise, *Bechst.* Naturg. Deut. 3. p. 860.—*Meyer*, Tasschenb. Deut. 1. 269.—*Frisch*, 14.—La Mesange bleue, *Buff.* Ois. 5. p. 413.—Blue Titmouse, Br. Zool. 1. No. 163. t. 57. f. 2.—*Ib.* fol 114. t. W. f. 5.—Arct. Zool. 2. p. 427. D.—*Will.* (Angl.) p. 242. t. 43.—*Albin*, 1. t. 47.—*Haye's* Br. Birds, t. 38.—*Lath.* Syn. 4. p. 543. 10.—*Don.* Br. Birds, t. 57.—*Lewin's* Br. Birds, 3. t. 120.—*Walc.* Syn. 2. t. 245.—*Pult.* Cat. Dorset. p. 10.—*Flem.* Br. Anim. p. 80.—*Selby*, pl. 51. fig. 2. p. 228.—*Bewick's* Br. Birds, 1. p. 237.

Provincial.—Blue Whaup. Nun. Hickwall. Blue Bonnet. Blue Cap. Billy Biter.*

Length about four inches and a half; weight three drams. The bill is dusky; irides dark hazel; forehead and cheeks white; that on the former inclines backwards, and forms a line round the crown of the head, which is of a fine blue; behind the circle of white is another of a deep blue, surrounding the head entirely, and joining the base of the under mandible, where it is nearly black; from the bill through the eye is a small black line; the back is of a yellowish green; wings and tail blue; breast and belly yellow; legs lead-colour.

This bird would be much more admired for its beauty if it were less common. In winter it frequents houses for the sake of plunder; will devour flesh greedily, whether fresh or putrid; and indeed is omnivorous. It is a constant attendant where horse-flesh is kept for hounds,

[1] Architecture of Birds. Chap. on Mason Birds, p. 126.

as well as the farm-yard, being partial to oats, which it plucks out, and retiring to a neighbouring bush, fixes the grain between its claws, and hammers it with the bill, to break the husk. In the summer, insects are its chief food, in search of which it plucks off a number of young buds from fruit and other trees. The nest is always made in some hole, either of a tree or wall, composed of moss, and lined with feathers and hair.

The bill of this bird, though short, is exceedingly strong; and from the active industry of its habits, I have little doubt that when it cannot find a hole suitable for its nest, it either hews out one, or enlarges it to its mind. In one of these nests, which I lately examined, in the hole of an oak at Shooter's Hill, in Kent, the wood, which was indeed decayed and soft, had evidently been cut away so as to give an upward winding entrance to the nest; and I have remarked a similar winding either upwards or on one side, in the nests of this bird, built in old stone walls, mortar or small stones having probably been removed with this design. The power of its bill in such cases, I had an opportunity of witnessing, in one which was kept in a cage. In a common wire cage it could not be confined for many minutes, as it always warped the wires aside, first with its bill, and then with its body, till it got out; but it did not find it so easy to escape from a cage made with netted wax thread, upon finding which unmanageable, it attacked the wood work, and into one of the dove-tailings of this it thrust its bill, acting with it in the manner of a wedge. It was unsuccessful indeed in unhinging this, but I have no doubt that half the force and skill which it exhibited, would have proved sufficient to hew out a nest-hole in a decayed tree.*[1]

The eggs are six or seven in number, rarely eight, white, speckled with rust-colour at the larger end; their weight is seventeen grains. It has been said that this bird will sometimes lay as many as twenty eggs in the same nest; but this is certainly an error, for in the great abundance of nests we have seen, with eggs and young, never more than eight were found. The female is tenacious of her nest, and will often suffer herself to be taken rather than quit it, and will frequently return again, after being taken out. Upon such an occasion it menaces the invader in a singular manner, erecting all its feathers, and hissing like a snake, or uttering a noise like the spitting of a cat, and if handled, bites severely. It has no song, but makes a shrill chirping noise, quickly repeated. It is found in every part of Europe.

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[1] Architecture of Birds. Chap. on Carpenter Birds, p. 134.

TOPE.—A name for the Wren.

TOR OUZEL.—A name for the Ring Blackbird.

TRACHEA.—The trachea or *aspira arteria*, as the windpipe is scientifically called, is in some species of aquatic birds of a most singular structure, possessing an enlargement at the bottom, which has been termed a labyrinth. This labyrinthic part is of essential use to the ornithologist, in discriminating the species, as well before their arrival at maturity, as in the several changes of plumage incidental to season. With a view to promote a discovery so essential, we propose to fix names to the several parts, in order to facilitate description.

In the labyrinthic part of the windpipe, (*trachea,*) there is a material difference in conformation, which forms two natural divisions, and as might be expected, belong to birds of different habits; one is a structure found amongst the diving-ducks with short wings, and some other birds, that collect their food mostly under water; and as far as experience has gone, this line of separation appears constant. There are, indeed, one or two species which deviate somewhat from either division, but do not connect the two.

In order to explain this subject, we shall consider that the windpipe of such birds, consists of three principal parts; that is to say, the windpipe, (*trachea,*) properly so called; the labyrinth, or swelling at the lower extremity; and the divarications at the bottom, (*bronchiæ,*) which connect the windpipe, (*trachea,*) with the lungs. The principal distinction in the labyrinth of the two divisions is as follows:—

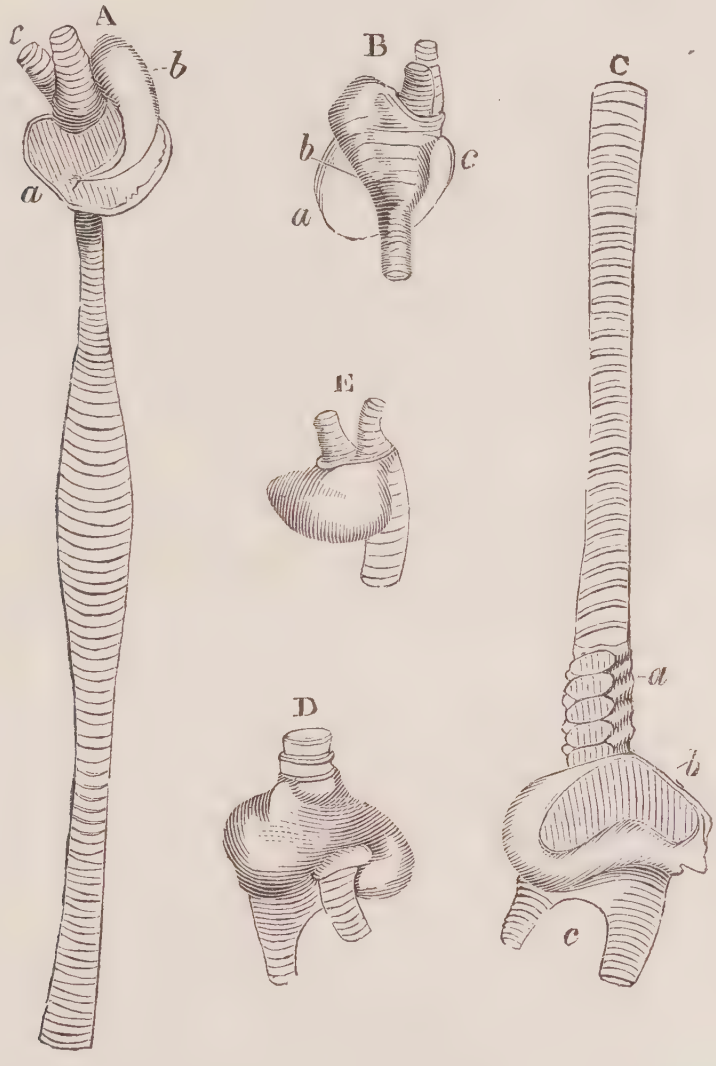
1. That which is composed of two distinct parts, one a compressed chamber, more or less covered with a thin membrane, situated on the left side of the windpipe, (*trachea,*) when in its proper place within the bird, which is called the drum (*tympanum;*) at the back of which is another chamber, formed by the junction and inosculation of the base of the true divarications, (*bronchiæ,*) the cartilaginous or bony rings of which are more or less united by ossification; a circumstance admirably exemplified in the labyrinth of the scaup-duck, (*Fuligula marila*, Stephens.) This part has been termed a bony box, (*orca,*) from its being usually ribbed like a dice-box, or the exterior and interior box, (*orca.*) From the bottom of the exterior box, (*orca,*) the flexible part of the right bronchial tube issues: the left bronchial tube arises from the base of the drum, (*tympanum,*) and is not in immediate contact with the interior box, (*orca,*) so that the respired air must first pass into the cavity of the drum, (*tympanum,*) in order to be received into the lungs. This is the labyrinth of the diving-ducks and mergansers.

2. The labyrinth belonging to the grovelling-ducks is much more

simple: it consists of either one or two sub-globular bony chambers, which have been called *ampulla*, a name we shall also retain.

In most species of this division there is only one *ampulla*, and that is situated on the left side; but in the sheldrake, (*Tadorna Belonii*, LEACH,) there are two *ampullæ*, one on each side. Where there is only one *ampulla*, the right *bronchial* tube is connected with the windpipe, (*trachea;*) the left proceeds from the base of the *ampulla*. Where there are two *ampullæ*, the *bronchiæ* are partly connected with the bony base of the windpipe, (*trachea,*) and partly with the *ampullæ*, so that there is a free circulation of respiring air through those chambers.

The structure here described will be better understood by the figures annexed.



A. Trachea of the white eye, *Fuligula nyroca*—*a*, the *tympanum* of the labyrinth—*b*, the bony arch that crosses the *tympanum*—*c*, the *bronchiæ*.

B. Labyrinth reversed—*a*, the back of the *tympanum*—*c*, the exterior *orca*—*b*, the interior *orca*.

C. Trachea of *Anas glacialis*—*a*, the opening of the base covered by a transparent membrane—*b*, the *tympanum* of the labyrinth—*c*, the *bronchiæ*.

D. Labyrinth of do. reversed, shewing the insertion of the *bronchiæ*.

E. Labyrinth of the Summer Duck, *Anas sponsa*, shewing the front of the *ampulla*. The bird to which this belongs is not properly British, but has been introduced by way of exemplification as the first time of its being figured.

TREE CREEPER or CLIMBER.—A name for the Creeper.

TREE LARK.—A name for the Tree Pipit.

TREE PIPIT (*Anthus arboreus*, Bechstein.)

* Anthus arboreus, *Bechst.* Naturg. Deut. 3. p. 706. t. 36. f. 1.—Alauda trivialis, *Linn.* Syst. 1. p. 288. 5.—*Gmel.* Syst. 1. p. 796.—*Lath.* Ind. Orn. 2. p. 493. 6, but not the synonimes.—Alauda minor, *Ib.* 2. p. 494. sp. 8.—*Gmel.* Syst. 1. p. 793.—Pipit des Buissons, *Temm.* Man. d'Orn. 1. p. 271.—L'Alouette Pipi, *Gerard.* Tab. Elem. 1. p. 246.—*Buff.* pl. Enl. 660. f. 1. the male.—Baumpieper, *Meyer*, Tasschenb. Deut. 1. p. 254. B.—*Frisch*, t. 16. f. 1. B.—Field Lark, Br. Zool. 5. 139.—Arct. Zool. 2. p. 395. D.—*Lewin's* Br. Birds, 3. t. 92.—*Lath.* Syn. 4. p. 375. 6.—*Mont.* Orn. Dict.—*Ib.* Supp.—*Walc.* Syn. 2. p. 192.—*Bewick's* Br. Birds, 1. p. 180.—Lesser Field Lark, *Will.* (Angl.) p. 207.—Lesser Crested Lark, *Lath.* Syn. 4. p. 391. 24.—The Lesser Field Lark, or Tree Lark, *Bewick's* Supp. p. t. 28.—The Grasshopper Lark, *Bewick's* Br. Birds, 1. p. 181. but confounding with it the habits and description of the Grasshopper Warbler, as noted by White in his Hist. Selb.—Field Titling, *Flem.* Br. Anim. p. 75.—Tree Pipit, *Selby*, pl. 49. fig. 5. p. 218.*

Provincial.—Short-heeled Field Lark, and Meadow Lark.

The length of this species is six inches and a half; weight five drams, forty-five grains. Bill dusky above, whitish beneath; irides hazel; the colour of the plumage on the upper parts is a light yellowish brown, the middle of each feather dusky brown; the wing coverts tipped whitish; rump plain light brown; throat and breast ochraceous yellow, the latter streaked with black; belly yellowish white; the tail feathers are somewhat pointed; the exterior one half white; the next slightly tipped the same; the legs yellowish-brown; claws horn-colour; hind claws short and hooked.

No bird has been more confounded than this species of lark. It visits this country in the spring, but is rarely seen till the beginning of May, and is most frequently mistaken for the meadow pipit, to which it bears great resemblance in plumage and habits; but as a special mark of distinction, the base of the bill in this is broader, and the hind claw is much shorter and more hooked; the throat and breast are also much more inclined to yellow than the meadow pipit is found to be in the

spring. But it must be remarked, that the meadow pipit assumes much of the yellowish hue in the winter, which has occasioned Mr. Lewin and others to conclude that the Tree Pipit bird is found with us in that season; and the same author has evidently given the figure of the meadow pipit for the sky lark, by the length and straitness of the hind claw.

The bill and hind claw of this bird are unerring marks of distinction, by which it may at once be discriminated from the other. Its legs are also uniformly of the same pale yellowish-brown colour, never becoming dusky, as in the matured birds of the other species.

We have been more particular in describing the difference between these two species, as we have frequently received one for the other. Dr. Latham shewed us several larks that were sent to him out of Yorkshire, amongst which one of this species was marked meadow pipit, and two of those birds called sky lark and pipit.

Mr. Pennant says the birdcatchers about London take a bird in the autumn they call pipit, but does not describe it. We have great reason to believe that the bird so called is the meadow pipit of this work, certainly not the grasshopper warbler, which we believe has been called pipit; nor is it likely to be the Tree Pipit, which leaves us at that season in the same solitary manner it comes to us, and is never known to be gregarious in this country.

The meadow pipits assemble in small flocks in autumn, and remain with us the whole year, which Mr. Lewin denies; and we mention this as another proof that he has completely confounded the two species. But this need scarcely be insisted on, for it is obvious, when he asserts "that the hind claw of the field lark is longer and stouter than in the titlark."

The Tree Pipit is by no means plentiful, but appears to be thinly scattered over most of the enclosed parts of England; is never met with on the moors or downs where the meadow pipit is most frequent. Its song is vastly superior to that bird, though something similar; this it delivers from the branch of a tree, or on the wing, as it is descending to the ground. From the beginning of May to July, it may be seen mounting in the air in a fluttering manner, at the same time uttering a twittering note, and then descending to some neighbouring tree with motionless wing and the tail thrown up. At this time it sings, but never when rising. And it is observable that it rarely pitches on the ground again until it has perched, and it always mounts in the like manner from a tree before it descends to the ground.

The meadow pipit, it is true, has much of these manners, but after

mounting in the air, it either returns to the ground or pitches on some low bush. The Tree Pipit generally makes a nest amongst the high grass or green wheat, and resides wholly in the more cultivated parts, and that only where there are trees. The nest is composed of dry grass, fibrous plants, and sometimes a little moss, and lined with fine dry grass and horse-hair. The eggs are four in number, of a dirty bluish white, thickly blotched, and spotted with purplish brown.

We have found this bird as far west as Devonshire, but rarely in Cornwall; also in the westernmost parts of South Wales, and in most of the southern parts of England; but no where so plentiful as in the north of Wiltshire.

TREE SPARROW (*Passer montanus*, Ray.)

* Fringilla montana, *Linn.* Syst. 1. p. 234. 37.—*Gmel.* Syst. 1. p. 925. sp. 27.—*Lath.* Ind. Orn. 1. p. 433. sp. 2.—Passer montanus, *Raii*, Syn. p. 87. 15.—*Briss.* 3. p. 79.—Loxia Hamburgia, *Gmel.* Syst. 1. p. 854. sp. 68.—Le Friquet, *Buff.* Ois. 3. p. 489. t. 29. f. 2.—*Ib.* pl. Enl. 267. fig. 1.—La Hamboureux, *Buff.* Ois. 4. p. 398.—Gros-Bec Friquet, *Temm.* Man. d'Orn. 1. p. 354.—Der Feldsperling, *Bechst.* Naturg. Deut. 3. p. 124.—*Meyer*, Tasschenb. Deut. 1. p. 158.—*Frisch*, Vög. t. 7. f. 2. male.—De Ringmusch, *Sepp.* Nederl. Vög. p. 79.—Hamburgh Tree-Creeper, *Albin*, 3. t. 24.—Hamburgh Grosbeak, *Lath.* Syn. 3. p. 149. 64.—Tree, or Mountain Sparrow, Br. Zool. 1. No. 128.—Arct. Zool. 2. No. 246.—*Will.* (Angl.) p. 252. t. 25.—*Lewin's* Br. Birds, 2. t. 78.—*Lath.* Syn. 3. p. 252. 2.—*Ib.* Supp.—*Don.* Br. Birds, 4. t. 88.—*Bewick's* Br. Birds, 1. p. 158.—*Shaw's* Zool. 9. p. 432. t. 64. f. 2.—*Selby*, pl. 55. fig. 2. p. 267.*

This species is rather less than the house sparrow; length five inches and a half. Bill black; irides greyish hazel. The head and nape chestnut; chin black; a spot of the same colour behind the eye; the upper parts of the body rufous-brown, spotted with black, inclining to greenish towards the rump; sides of the neck, the breast, and under parts, dusky white; wing coverts rufous, edged with black, and crossed with two bars of white; the greater coverts black, with ferruginous edges; quills blackish, with rufous edges; tail even at the end, colour rufous-brown; legs pale yellow.

This species may be considered as one of the most local of our indigenous birds; and is, we suspect, by no means plentiful in any part of England; but as the circumstance of house sparrows sometimes making their nest in trees, has occasioned an opinion that they are a different species, and have frequently been entitled Tree Sparrow, it is extremely difficult to trace the true *Passer montanus*.

The Tree Sparrow appears to be much inferior in size to the house sparrow, although the difference in weight is only about a dram, this being six drams; and the length is inferior by half an inch, being five inches and a half; with no discrimination of sexes by size, or by

colour and markings. The fact is, that the young, as in the common sparrow, puts forth the black marks last, and consequently in the infant state of plumage it has been considered as the female. It is a much more elegant species than the house sparrow, and differs from that bird with respect to sexual distinction in plumage; for every one knows the cock from the hen of that very common species (*Passer domesticus*). The note of the Tree Sparrow would only be discriminated from the other by persons of experience in science; it is, however, more shrill. So little do people in general know or discriminate the bounties of nature with which they are surrounded, that even the best informed do not know the distinction of these two species.

It is now perfectly clear this bird resides amongst trees only, and that it makes its nest in holes and cavities of such as are decayed, and never amongst the branches, nor in buildings.

*On a small estate belonging to Bethlem Hospital, close to the village of Wainfleet, a few pairs of these birds had taken possession of some large trees, (the only ones deserving the name for many miles round,) which after having been condemned, were reprieved upon a representation of their very great advantage to mariners, as a conspicuous land-mark in such a flat and featureless country. Here then we expected to realize all our anticipation with respect to the natural history of this species, it being the middle of May, which is the height of the breeding season. We soon procured a specimen, but in vain were all the trees examined for their nest; not even the house sparrow had resorted to these trees to build amongst the foliage. By concealing ourselves near to some old and much decayed pollard-trees, to which several of these birds were observed to be more than ordinarily attached, we had the satisfaction of observing one of them enter a small hole. No doubts now remained of the place of nidification; and after suffering the bird to remain for some time it was driven out and shot, with a full expectation that it would prove a female, the other having possessed all the black marks which are asserted to characterize the male only. To our astonishment, however, this was exactly similar in markings; and we had yet to obtain the female.

Two others were afterwards shot on the same tree, both of which corresponded exactly with those already in our possession, which occasioned a strong suspicion that there was some mistake in the usual description of the distinction of the two sexes; and, as suspected, they actually turned out to be one of each sex.

It only now remained to enlarge the holes in the tree in order to search for the nests, which, by the assistance of a chisel, was soon

effected, and the nests belonging to the two pairs of birds were taken, each with four eggs. The materials with which the nest is made, are the same as those commonly used by the house sparrow, chiefly hay and feathers. The eggs are also similar to those of that bird, but smaller, weighing from thirty-four to forty-one grains.*

TRINGA (Brisson.)—*Sandpiper, a genus thus characterised. Bill of middle size, or long, very slightly arched; bent at the point, or straight, soft and flexible in its whole length, compressed at the base, depressed, dilated, and obtuse at the point; both the mandibles furrowed as far as the point; nostrils at the sides conical, pierced in the membrane which covers the nasal groove in all its length; legs slender, naked above the knee; three toes before, and one behind; the fore toes entirely divided; in a small number, the middle toe and the outer reunited by a membrane; hind toe jointed upon the shank; wings of middle size, the first quill the longest.*

TUFTED DUCK (*Fuligula cristrata*, Stephens.)

* Anas Fuligula, *Linn.* Syst. 1. p. 207. 15.—*Gmel.* Syst. 11. p. 543.—*Lath.* Ind. Orn. 2. p. 868. 90.—*Will.* p. 280. t. 73.—*Temm.* Man. d'Orn. 2. p. 873.—Anas Scandica, *Gmel.* Syst. 1. p. 520. 88.—Anas cristrata, *Raii*, Syn. p. 142. A. 7.—Glaucium minus, *Briss.* 11. p. 411. 26. t. 37. 1.—*Ib.* 8vo. 2. p. 469.—Nyroca Fuligula, *Flem.* Br. Anim. p. 122.—*Stor.* degl. ucc. 5. p. 594.—Morillon, *Buff.* Ois. 9. p. t. 227. 231. t. 15.—Tufted Duck, Br. Zool. 2. No. 274. *Ib.* fol. 153.—Arct. Zool. 2. p. 573. G.—*Albin*, 1. t. 95.—*Will.* (Angl.) p. 365. t. 73.—*Haye's* Br. Birds, t. 26.—*Lath.* Syn. 6. p. 540. 79.—*Pult.* Cat. Dorset. p. 20.—*Walc.* Syn. 1. t. 78.—*Lewin's* Br. Birds, 7. t. 257.—*Wils.* Amer. Orn. 8. pl. 60. 67. 5.—Linn. Trans. 6. p. 515.—*Mont.* Orn. Dict.—Lapmarck Duck, *Lath.* Syn. 6. p. 515.—Brown Duck, *Penn.* Arct. Zool. Q.

This species weighs about twenty-five ounces; length seventeen inches; the bill is near two inches long, of a bluish lead-colour, broadest towards the point; nail black; irides black yellow; the head, neck, upper part of the breast, and whole upper part of the body, black; the two first tinged with changeable violet and green; on the back of the head a pendant crest of very narrow feathers, sometimes two inches long; the back and scapulars are very minutely speckled with grey, not distinguishable at a small distance; the three or four first greater quills black on their outer webs, the rest more or less white towards the base; the secondaries, except four or five next the body, white, tipped with black, and slightly edged with the same; lower breast and belly glossy white; above the thighs, and behind the vent, black; the tail is somewhat cuneiform, and consists of fourteen black feathers; the whole upper parts of the bird have a slight tinge of violet, when viewed in some particular lights; legs and feet dusky black.

This bird is subject to much variety in size and colour; it will sometimes weigh as much as thirty-one ounces, others not above twenty-

two; and the black on the breast is intermixed with brown, as well as the plumage in general being of a rusty brown: such are probably birds of the first or second year.

The female resembles the other sex in markings; but where that is black this is of a rusty brown; the sides are also brown, which in the male are white; and the head wants the crest. This, however, is sometimes the case in young male birds.

The Tufted Duck is not uncommon with us in winter; it is frequently seen in our fresh waters as late as the latter end of March; but is difficult to shoot, by reason of its incessant diving. They are often brought to market and sold for wigeons. It is found in all the northern parts of Europe, and in America. During the spring it is found upon the coast, and in the autumn upon the lakes and rivers of the interior.

* Scopoli has noticed a variety as large as a mallard, with a yellowish bill; and another, of a less size, with a band or speculum on the wing of shining green, above which is a rufous one, and beneath a black band. It is much to be doubted, however, if these are the same species; such do not seem to have been noticed in England; and indeed the great speculum in the wing of the latter should forbid it, as this in general is a pretty clear mark of distinction in the duck tribe. The male of this species possesses a *labyrinth*.*

TULIAC.—A name for the Skua.

TURDUS (Linnæus.)—*Thrush, a genus thus characterised. Bill slightly bending towards the point, which is rather compressed; the upper mandible notched; gape furnished with few bristles; nostrils, at the sides of the base, oval, and partly covered by a naked membrane; toes three before and one behind; the outer toe joined at its base to the middle one, which is shorter than the shank; of the wings, the first quill is short, and the third and fourth are the longest.*

TURNSTONE (*Strepsilas collaris*, Temminck.)

Tringa Interpres, *Linn.* Syst. 1. p. 248. 4.—*Gmel.* Syst. 2. p. 671.—*Lath.* Ind. Orn. 2. p. 738. 45.—Tringa Morinella, *Linn.* Syst. 1. p. 249. 6.—Morinellus marinus, *Raii*, Syn. p. 112. A. 5.—*Will.* p. 231. t. 58.—Arenaria, *Briss.* 5. p. 132. 1.—*Ib.* 8vo. 2. p. 246.—Strepsilas collaris, *Temm.* Man. d'Orn. 2. p. 553.—Strepsilas Interpres, *Flem.* Br. Anim. p. 110.—Arenaria cinerea, *Briss.* 5. p. 137. 2. t. 11. f. 2.—*Ib.* 8vo. 2. p. 247.—Le Tournepierre, *Buff.* Ois. 8. p. 130. t. 10.—Hebridal Sandpiper, Br. Zool. 2. No. 200.—Arct. Zool. 2. No. 382.—Turnstone, or Sea Dotterel, Br. Zool. 2. No. 199.—*Ib.* fol. 125. t. E. 2. f. 2.—*Will.* (Angl.) p. 311.—*Edw.* t. 141.—*Lath.* Syn. 5. p. 188. 37.—*Ib.* Supp. p. 249.—*Lewin's* Br. Birds, 5. t. 179.—*Walc.* Syn. 2. t. 153.—*Pult.* Cat. Dorset. p. 15.—*Bewick's* Br. Birds, 2.—*Mont.* Orn. Dict.

This species is about the size of a thrush; length nine inches and a

half; weight rather more than four ounces; the bill is black and strong, about an inch in length, and turns a little upwards; irides hazel; forehead and chin white; across the breast a broad band of black; the fore part of the neck black, joining to that on the breast, and encircling the upper part of the neck; a black streak from the eyes, and another from the bill, meet in an angle at the collar on the side of the neck; above the eye a streak of white; on the ears a spot of the same; the back part of the neck is white, mixed with brown, which passes down each side of the breast; the crown of the head, upper part of the back, and scapulars, is a mixture of black and ferruginous; the latter whitish on their exterior edges; lesser wing coverts nearly the same, but lighter; lower part of the back under the scapulars white; quills dusky, the secondaries tipped with white; the greater coverts edged with the same; the shafts of the primary quills white; belly, vent, and under tail coverts white; upper tail coverts also white, crossed with a bar of black; tail black, tipped with white, except the middle feathers; legs orange.

The bird from which the above description is taken was killed in September, on the coast of South Wales; another in my collection, killed in Cornwall the beginning of August, has a faint collar round the neck, which, with the band on the breast, is dusky brown; the chin is white, but the whole head is brown, with dusky streaks; the back and scapulars black, each feather deeply margined with light ferruginous; the exterior feather of the tail white on the outer web; legs light yellowish brown. This is undoubtedly a young bird.

The Turnstone is subject to great variety in respect to the markings about the head and neck; but the black on the breast, and more or less round the neck, at once distinguish it from any other species. In some the base half of the tail is white, and the quills next the body the same, as well as the base of the rest, except the four first. In others the lower part of the back, rump, and upper tail coverts, are wholly white.

This bird is sometimes met with on the coast in small flocks of five or six; probably the brood, which in most, if not in all, of this class, consists of four young. It is not known to breed with us, but visits some of our shores in August, and departs in the spring. It is said to breed in Hudson's Bay, makes a slight nest on the dry ground, and lays four olive-coloured eggs, spotted with black. Fleming concludes, from seeing them at all seasons in Zetland, that it breeds there. The name has been given it from its manner of turning up the stones in search of marine insects.

TURTLE DOVE (*Columba turtur*, Linnæus.)

* Columba turtur, *Linn.* Syst. 1. p. 284. sp. 32.—*Gmel.* Syst. 1. p. 786. sp. 32.—*Lath.* Ind. Orn. 2. p. 605. sp. 47.—*Raii*, Syn. p. 61. A. 2.—*Will.* p. 134. t. 35. *Briss.* 1. p. 92. 7.—Turtur auritus, *Raii*, Syn. p. 184. t. 26.—La Tourterelle. *Buff.* Ois. 2. p. 545. t. 25.—*Ib.* pl. Enl. 394.—*Temm.* pig. et gall. 1. p. 305.—*Ib.* edit. fol. pl. 42.—*Ib.* Man. d'Orn. 2. p. 448.—Turtel Taube, *Bechst.* Naturg. Deut. 3. p. 1076.—*Meyer*, Tasschenb. Deut. 1. p. 289.—*Frisch*, Vög. t. 140.—Tortel Duif, *Sepp.* Nederl. Vög. 1. t. p. 11.—Common Turtle, Br. Zool. No. 103. t. 45.—*Albin*, 2. t. 47. and 48.—*Will.* (Angl.) p. 183. t. 35.—*Lath.* Syn. 4. p. 644. 40. var. A. B. C. D.—*Ib.* Supp. p. 199.—*Haye's* Br. Birds, t. 14.—*Lewin's* Br. Birds, 4. t. 130.—*Pult.* Cat. Dorset. p. 7.—*Walc.* Syn. 2. t. 188.—Turtle Dove, *Mont.* Orn. Dict.—*Bewick's* Br. Birds, 1. p. t. 272.—*Flem.* Br. Anim. p. 47.—*Selby*, pl. 56. fig. 2. p. 294.*

This elegant species weighs rather more than six ounces; length twelve inches; the bill is brown; irides reddish yellow; a bare space beneath and behind the eyes of a purplish red; the top of the head and upper part of the neck behind cinereous; on each side of the neck is a patch of black feathers, tipped with white; the back is brown, dashed with ash-colour, lightest on the margin of each feather; scapulars and wing coverts black, deeply margined with ferruginous brown; quills dusky brown, with light edges; the forehead and chin dull white; breast pale vinaceous; belly and under tail coverts white; the sides above the thighs ash-colour; upper coverts of the tail dusky, edged with brown, and dashed with ash-colour; the tail is black, tipped with white, except the two middle feathers, which are wholly of a dusky brown; the outer feather is much shorter than the rest, and white on the exterior web; legs purplish red. The female, in general, is not quite so bright in colour, and is rather less than the male.

The Turtle visits the southern parts of England in the spring, and re-migrates the beginning of September. It chiefly inhabits thick woods, where it makes a nest in a tree, composed of sticks or small twigs. The eggs are two in number, and white. These birds seem to be more plentiful in Kent than in any other county. Dr. Latham observes they are seen, in that district, to frequent the pea-fields in flocks of twenty or more, as soon as the peas begin to ripen. We have also seen small flocks, in the month of August, on Romney Marsh, which were said to visit annually the same spot about that season. It is found, though rarely, as far westward as Devonshire; but, we believe, not far northward. This species appears to be subject to some variety. In the general Synopsis mention is made of four or five; if so, it is found in China, Manilla, Portugal, Java, and other parts. But some of these are given as distinct species by other authors. Under the craw of this bird are placed glands, secreting a lacteal fluid, probably common to all this genus.

The young of this species do not throw out the black feathers on the neck the first year; and the bare space about the eyes is of a grey colour.

A variety of the common turtle has been described by the name of the spotted-necked turtle dove, (*Lath.* Syn. 4. p. 645. 40. A.—Ind. Orn. 2. p. 606. 47. β.) The difference consists in the whole side of the neck being black, and, instead of those feathers being tipped with white, there is a round spot of white on each, very near the end. Dr. Latham says this bird was shot in Buckinghamshire, and that he observed one of these amongst some birds that came by the last expedition to the South Seas; but as it was in a parcel wherein was some which belonged to the Cape of Good Hope, it is possible that this might come from that place.

TWINK.—A name for the Chaffinch.

TWITE (*Linaria montana*, Ray.)

Fringilla montium, *Gmel.* Syst. 1. p. 917. sp. 68.—*Lath.* Ind. Orn. 1. p. 459. sp. 84.—Linaria montana, *Briss.* 3. p. 145. 38.—*Raii*, Syn. p. 91. A. 4.—*Will.* p. 191.—Grosbec à gorge rouge, ou de Montaign, *Temm.* Man. d'Orn. 1. p. 368. —Arktische Fink, *Bechst.* Tasschenb. p. 125. t. 9.—*Ib.* Naturg. Deut. 2. p. 139. —Gelbschnabliche Fink, *Naum.* Vög. t. 20. f. 39.—*Frisch*, t. 10. f. 1. female. —Mountain Linnet, Br. Zool. No. 133. t. 53.—*Will.* (Angl.) p. 261.—Arct. Zool. 2. p. 380. C.—*Lath.* Syn. 3. p. 307. 76.—*Lewin's* Br. Birds, 2. t. 86.— —*Pult.* Cat. Dorset. p. 13.—*Bewick's* Supp. to Br. Birds, t. p. 24.—*Flem.* Br. Anim. p. 84.—Twite, *Mont.* Orn. Dict. 2.—*Low's* Faun. Orcad. p. 64.—*Shaw's* Zool. 9. p. 521.—*Selby*, pl. 55. fig. 5. p. 278.

Like the linnet, this species is subject to a change in the colour of its plumage during a certain period, rendering its summer appearance very different from that which it bears during the rest of the year. It is rather larger than the linnet; length above six inches; the bill is yellowish, brown at the tip; irides hazel; the top of the head and rump red; upper parts dusky black, edged with rufous; beneath rufous white, with blackish spots on the throat; belly white. In some the whole head is light rufous, streaked on the top with dusky; the back, scapulars, and wing coverts, dark rufous-brown, with paler edges; rump tinged with red; greater quills and tail dusky black, more or less edged with white on the exterior webs; upper part of the breast and sides rufous-white, spotted and streaked with dark rufous-brown; lower part of the breast, belly, and under tail coverts, white; tail forked; legs dusky. Like the redpole, this bird is subject to much variety in respect to the red markings. Some are described to have the top of the head, breast, and rump, red. In its general appearance it is much like the female of that bird, but darker on the upper parts, as well as more rufous on the cheeks and throat; the red on the rump is never found in that bird.

The Twite is gregarious, accompanying the linnet in large flights,

and they are taken together about London by the bird-catchers. A variety has been given as the mountain linnet; it has a twittering note, but has not been observed to sing.

Dr. Latham favoured us with the nest and eggs, which he received out of Yorkshire. * Selby says it is generally found amid the tops of the tallest heath, and is formed of moss and roots of plants mixed with heather, and lined with finer heath and fibrous roots.* The egg is the size of that of the linnet, of a blue-white, or bluish-green, faintly spotted with purplish-red, or pale orange-brown, at the larger end.

The female is said to want the red mark on the rump, and may therefore be frequently mistaken for the common linnet before it has thrown out the other red markings. It is possibly found in many other parts of England in the winter season, but not generally distinguished from the linnet.

Some doubts have been expressed by Bechstein, and other naturalists, whether this might not prove to be a variety of the redpole, or linnet. "It is remarked," says Temminck, "by M. Veillot, in the Memoirs of the Royal Academy of Turin, speaking of the first edition of this manual, 'that I did not then know the subject of the present article; I have since been furnished, by the assistance of M. Boiè, who has travelled through a great part of Sweden and Norway, with many important observations tending to confirm my former opinion, that this forms a distinct species, and is not the same as the *F. Flavirostris*, which is nothing else than a variety of the redpole (*F. Linaria*), as I asserted in the first edition; this last is not, however, the *Fringilla flavirostris* of Nilsson's Faun. Suec. 1. p. 140. 71, which is an exact description of our bird. I believe that Pallas and Linnæus have also the same species in view, in their *F. Flavirostris;* but the descriptions of Retz, Gmelin, and Latham, apply to the redpole. It is extremely difficult to unravel the confusion and explain the numberless errors of compilers."

This species inhabits the Arctic regions, and is very common in Norway and Sweden, but is rare in Russia and the southern parts of Germany.

Velvet Duck.

UNDER TAIL COVERTS.—Those feathers immediately covering the base of the tail beneath.

UNDER WING COVERTS.—Those feathers covering the wing underneath.

UPPER TAIL COVERTS.—Those feathers immediately covering the base of the tail feathers.

UPUPA (Linnæus.)—*Hoopoe, a genus thus characterised. Bill long, compressed, awl-shaped, and curved; nostrils at the base ovate and open; legs, with the shank short, three toes before, and one behind; the outer toe joined to the middle one, as far as the first joint; claws short, and not much hooked; tail composed of ten feathers, square at the end; wings having the first quill short, and the fourth and fifth the longest.*

URIA (Brisson.)—*Guillemot, a genus thus characterised. Bill middle-sized or short, straight, pointed, compressed; the upper mandible slightly curved towards the point; the under forming an angle more or less open; nostrils at the sides of the base concave, slit lengthwise, one half hid by a broad membrane, clothed with feathers, and pierced from part to part; legs short, placed back upon the belly beyond the balance of the body; shanks slender; only three toes, placed

before, wholly webbed; claws curved; wings short, the first quill the longest.*

VELVET DUCK (*Oidemia fusca*, Fleming.)

Anas fusca, *Linn.* Syst. 1. p. 196. 6.—*Gmel.* Syst. 2. p. 507.—*Lath.* Ind. Orn. 2. p. 848. No. 44.—*Temm.* Man. d'Orn. 2. p. 855.—Anas nigra major, *Raii*, Syn. p. 141. A. 4.—*Will.* p. 278. t. 70.—*Briss.* 6. p. 423. 29.—*Ib.* 8vo. 2. p. 472.—Turpan, *Buff.* Ois. 9. p. 291 ?—Grande, ou double Macreuse, *Ib.* 9. p. 242.—Great Black Duck, *Will.* (Angl.) p. 363. t. 70.—Velvet Duck, Br. Zool. 2. No. 272. t. 96.—*Ib.* fol. 152.—Arct. Zool. 2. No. 482.—*Ib.* Supp. p. 75.—*Lath.* Syn. 6. p. 482. 37.—*Ib.* Supp. p. 274.—*Pult.* Cat. Dorset. p. 20.—*Walc.* Syn. 1. t. 58.—*Lewin's* Br. Birds, 7. t. 247.—Velvet Scoter, *Flem.* Br. Anim. p. 119.—Linn. Trans. 4. pl. 15. 3. 7. (Trachea.)

Provincial.—Double Scoter. Black Diver.

This is rather larger than the common drake; length about twenty inches. The bill broad, with a black knob at the base; the rest of the bill is yellow; the nail red; the edges all round black; the plumage is black, inclining to brown on the belly; under each eye is a white mark passing backwards in a streak; across the middle of the wing is a band of white; legs red; claws black. The female is more inclining to brown, and the protuberance on the bill is wanting; forehead and cheeks under the eye, dull brownish; behind that a large oval spot of white; whole upper parts and neck dark brownish drab; tips of the plumage lighter; second ones white; wing quills deep brown; belly brownish-white; tail hoary-brown; the throat white, marked with dusky specks; legs and feet yellow.

This species much resembles the scoter, only that bird has no white feathers about it, and the colour of the bill is somewhat different. In the windpipe of this bird is a singular bony swelling, the size of a small walnut, situated about two-thirds of the length from the *larynx;* immediately under the *larynx* is another oblong bony cavity, of nearly an inch in length; at the divarication the parts become bony, but not greatly enlarged. This is peculiar to the male sex. It is sometimes seen on our coasts in winter, but not commonly; and is, we believe, never found in fresh water. It frequents Hudson's Bay in summer, where it breeds; is said to make a nest of grass, and to lay from six to ten white eggs.

"This species," says Wilson, "is often confounded with the scoter, by our gunners on the sea coast. It differs, however, in being of greater size, in having a broad band of white across the wing, a spot of the same under the eye, and in the structure of its bill. The habits of both are very much alike; they visit us only during the winter; feed entirely on fish, which they procure by diving, and return to the northern regions early in spring to breed. They often associate with the scoter, and are frequently taken in the same nets with them. Owing

to the rank fishy flavour of its flesh, it is seldom sought after by our sportsmen or gunners, and is very little esteemed."

"It is not uncommon in Denmark, Russia, and Siberia. It is also found in some parts of Kamtschatka, where it is said to breed, going far inland to lay; the eggs are eight or ten in number, and white; the males depart and leave the females to remain with the young until they are able to fly. In the river Ochotsky, they are so numerous that the natives, in large bodies, drive them up the river before them, and when the tide ebbs, knock them on the head with clubs in such numbers, that each man will have from twenty to thirty to his share."

VENT FEATHERS.—Those which lie between the Vent and Under-tail Coverts.

VELVET RUNNER.—A name for the Water Rail.

VIBRISSÆ PECTINATÆ.—Stiff hairs that grow on each side of the mouth in a regular form; as in the Nightjar.

VISION OF BIRDS.—* Ross in his voyage to Baffin's Bay, proved that a man under favourable circumstances could see over the surface of the ocean to the extent of one hundred and fifty English miles. It is not probable that any animal exceeds this power of vision, though birds, perhaps, excel men and most quadrupeds in sharpness of sight. Schmidt threw at a considerable distance from a thrush (*Turdus musicus*) a few small beetles, of a pale grey-colour, which the unassisted human eye could not discover, yet the thrush observed them immediately and devoured them. The bottle tit (*Parus caudatus*,) flits with great quickness among the branches of trees, and finds on the very smooth bark its particular food, where nothing is perceptible to the naked eye, though insects can be detected there by the microscope. A very tame red-breast (*Sylvia rubecula*, LATHAM,) discovered crumbs from the height of the branch where it usually sat, at the distance of eighteen feet from the ground, the instant they were thrown down, and this by bending its head to one side, and using, of course, only one eye. At the same distance a quail discovered, with one eye, some poppy-seeds, which are very small and inconspicuous.[1]

In a recent number of the Medico Chirurgical Review, Dr. James Johnson has shrewdly combated the opinion, that birds of prey are led by scent, and thinks that they are usually, if not uniformly, guided by vision.

"It has always appeared to us," says he, "most extraordinary, indeed unaccountable, that birds of prey could scent carcasses at such a

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[1] Schmidt, Blicken en den Haushalt der Natur, p. 26, edit. 1826.

distance as they are said to do. We were led to scepticism on this subject, some twenty years ago, while observing the concourse of birds of prey from every point of the horizon, to a corpse floating down the river Ganges, and *that* during the north-east monsoon, when the wind blew steadily from one point of the compass for months in succession. It was extremely difficult to imagine that the effluvia from a putrifying body in the water, could emanate in direct opposition to the current of air, and infringe on the olfactories of birds many miles distant. Such, however, were the *dicta* of natural history, and we could only submit to the general opinion. We have no doubt, now that we know the general opinion to be something wrong, that it was by means of the optic rather than the olfactory nerve, that these birds found out their quarry.

The toucan ranks next to the vulture in discerning, whether by smell or by sight, the carrion on which it feeds. The immense size of its bill, which is many times larger than its head, was supposed to present, in its honeycomb texture, an extensive prolongation of the olfactory nerve, and thus to account for its power of smelling at great distances; but, on accurate examination, the texture above-mentioned in the bill, is found to be mere diploe to give strength to the bill. Now the eye of this bird is somewhat larger than the whole brain; and it has been ascertained by direct experiments, that where any putrid carrion was inclosed in a basket, from which effluvia could freely emanate, but which concealed the offal from sight, it attracted no attention from vultures and other birds of prey till it was exposed to their view, when they immediately recognised their object, and others came rapidly from different quarters of the horizon, where they were invisible a few minutes before. This sudden appearance of birds of prey, from immense distances, and in every direction, however the wind may blow, can only be accounted for by their soaring to an altitude. In this situation their prey on the ground is seen by them, however minute it may be, and their appearance is merely their descent from high regions of the atmosphere to within the scope of our optics. How far these remarks apply to the raven, the only bird of the vulture genus that comes within our review, we leave for more experienced naturalists."*

Wheatear.

WADERS (*Grallatores*, ILLIGER.)—An order of wading birds.

WAGEL GULL.—A name for the young of the Cobb (*Larus marinus.*)

WAGTAIL (*Motacilla*, AUCTORES.)—A genus of Perchers, (*Insessores*, VIGORS,) of which we have the Pied and Winter Wagtails; the Spring Wagtail is separated from this genus by Cuvier.

WALK OF BIRDS.—* All aquatic birds and waders walk or run in the ordinary manner, placing one leg before the other alternately; but the greater part of the smaller land birds hop, or rather jump along, as if their legs were tied together. The starling, the lark, and wagtail, are walkers, and are never seen to hop, as it is termed; whereas the pies mostly walk, but will frequently hop.*

WALL HICK.—A name for the Crank Bird.

WARBLER (*Sylvia*, LATHAM.)*—A genus of Perchers (*Insessores*, VIGORS,) which has recently been divided into several new genera.*

WASH DISH and WASHERWOMAN.—Names for the Pied Wagtail, expressive of its peculiar motions.

WATER CRAKE.—A name for the Bilcock.

WATER CROW.—A name for the Dipper.

WATER HEN.—A name for the Gallinule.

WATER OUZEL and WATER PYET.—Names for the Dipper.

WATER RAIL.—A name for the Bilcock.

WATER SPARROW.—A name for the Reed Sparrow.

WATER WAGTAIL.—A name for the Pied Wagtail.

WEAVER BIRDS.—*I have thus termed those birds which interweave the materials of their nests into a kind of cloth, of which I have details in a chapter of "Architecture of Birds."*

WEB-FOOTED BIRDS (*Natatores*, Illiger.)—*Those having their toes united by a membrane, to fit them for swimming.*

WEESEL COOT.—A name for the young Smew.

WHAUTIE.—A name for the White Throat.

WHAUP.—A name for the Curlew.

WHEATEAR (*Saxicola Œnanthe*, Bechstein.)

Saxicola Œnanthe, *Bechst.* Naturg. Deut.—Sylvia Œnanthe, *Lath.* Ind. Orn. 2. p. 529. 79.—Motacilla Œnanthe, *Linn.* Syst. 1. p. 332. 15.—*Gmel.* Syst. 1. p. 966. sp. 15.—*Retz.* Linn. Fauna Suec. p. 259. sp. 242.—*Raii*, Syn. p. 75. A. 1.—*Will.* p. 168. t. 41.—Vittaflora, *Briss.* 3. p. 449. 33.—Le Moteux ou Vitrec, *Buff.* Ois. 5. p. 237.—*Ib.* pl. Enl. 554. f. 1. 2.—Traquet Moteux, *Temm.* Man. d'Orn. 1. p. 237.—Graurückiger, Steinschmatzer, *Meyer*, Tasschenb. Deut. 1. p. 251. B.—Wheatear, Fallow Smich, or White Tail, Br. Zool. 4. No. 157.—Arct. Zool. 2. p. 420. P.—*Lath.* Syn. 4. p. 465. 95.—*Ib.* Supp. p. 182.—*Selby*, pl. 48. fig. 1. p. 199.—*Lewin's* Br. Birds, 3. t. 110.—*Mont.* Orn. Dict.—*Will.* (Angl.) p. 133. t. 41.—*Pult.* Cat. Dorset. p. 9.—*Walc.* Syn. 2. t. 241.—*Low's* Faun. Orcad. p. 72.—White Rump, *Bewick's* Br. Birds, 1. p. t. 329. male.—Fallow Chat, *Flem.* Br. Anim. p. 67.

Provincial.—Fallow-Finch, or Fallow-Smith. White-tail. Snorter. Stone Chacker. Chickell. Chack Bird.

This species weighs about six drams and a half; length near six inches and a half. The bill is black, and considerably broad at the base, where it is beset with bristles; irides hazel. From the nostril is a black streak through the eye, taking in the coverts of the ear; over each eye a white stroke meeting on the forehead; the upper part of the head and back cinereous grey; rump, upper and under tail coverts, white; quill-feathers dusky, mostly edged with light rust-colour; coverts black, tipped with rusty yellow; under part of the neck buff; breast and belly yellowish white; tail white, the two middle feathers black at the end for about an inch, the rest tipped half an inch with the same; legs and claws black.

The female is about a dram heavier than the male; has all the markings of that sex, but less vivid; the white on the forehead and over the eye, as well as the black streak, is very obscure; and the cinereous grey on the back is mixed with brown.

The Wheatear is a migrative species, appearing with us the latter end of March; some few probably remain the whole year, as we have

now and then seen it in the month of February. It principally frequents rabbit-warrens, or such parts as are enclosed with stone walls; makes its nest in a deserted rabbit-burrow, or in an old stone quarry; sometimes in a heap of stones, or the hole in a wall; but most times on the ground. It is composed of moss and dried stalks and fibres put together with wool, and lined with hair or wool. The eggs are five or six in number, of a uniform pale blue colour, weighing about forty-three grains. The numbers that breed in this country must be very considerable, but so dispersed that few are seen at that season in the same situation. In September they begin to retire, and seem to assemble from all parts to the Sussex and Dorset downs contiguous to the coast, preparatory to their departure. The quantity taken annually about Eastbourn is prodigious; Mr. Pennant says 1840 dozen. These are caught in a singular manner, by placing two turfs on edge; at each end of which a small horse-hair noose is fixed to a stick, which the bird, either in search of food or to evade a storm of rain, attempts to get under, and is caught. Upon inquiry of the shepherds, whose trade this is, we have been informed that fifty or sixty of these traps have had a bird in them of a morning; sometimes several mornings together, and then for a day or two scarcely one is to be seen; and yet they are never observed to come in flocks: it is the general opinion that they come in the night.

* "I observed a pair," says Sweet, "on the 17th of November last, near the gravel-pit in Hyde-park, which were quite lively, and flying about after the insects, as brisk as if it had been the middle of summer. From their appearance, I should suppose they had been about there for some time, as they were not at all shy, but would allow me to come within three yards of them, so that they might have been easily caught in a trap, if I had wished for them; but being previously in possession of a pair, I did not trouble myself about them. I have seldom heard the Wheatear sing when wild, but when I have, its song was very soft, and scarcely to be heard, except when very near it; though I must allow I have never been much in the places that they frequent in summer, so that they may sing more than I am aware of. In confinement, they are almost continually in song, and sing by night as well as day; they have a very pleasant, variable, and agreeable song, different from all other birds; sometimes it is very loud, and they continue it a great length of time, not continually breaking off like a robin redbreast, and some other birds; but their winter song is best, and most varied. A pair that I possess at present were caught in September last, and they began to sing in a few days, and have continued in song

ever since; and now, while writing this, the twenty-second day of December, they are in full song. When in a large cage or aviary, where there is plenty of room, it is very amusing to see them at play, flying up and down, and spreading open their large wings in a curious manner, dancing and singing at the same time."*

These birds usually sell for a shilling a dozen; and it is a common custom in those parts where they are taken, to visit the traps, take out the bird, and leave a penny in each as a reward for the shepherd. It is esteemed a great delicacy, not much inferior to the ortolan, and is sometimes sent to the London market ready picked.

The song of this bird is pleasingly varied; is uttered not unfrequently on the wing, hovering over the female in the courting season, and displaying its tail in a very singular manner, by an expansion of the feathers. Its flight is smooth and rapid, but near the surface of the ground; and it commonly alights upon the top of a small hillock, stone, or wall.

In the continuation to Shaw's Zoology, Mr. Stephens has removed this species to the head of a new genus, which he has named *Vitta flora*. Several authors have described a variety of this bird, having a mixture of whitish and fulvous on the upper part, and very small grey spots on the lower part of the neck; and the two middle feathers of the tail wholly black. This variety is named the grey wheatear by Mr. Pennant, in the Appendix to his British Zoology.

On the 24th of March, 1804, a vast number of these birds made their first appearance on the south coast of Devon, near Kingsbridge, in a low sheltered situation, and continued in flock the whole of the day, busied in search of food: the flock consisted entirely of males, without a single female amongst them. For some time the wind had been fluctuating, and the weather cold, attended with hail and snow, for a day or two preceding their appearance; and a strong gale of wind from the east, obliged these birds to make a landing so much farther to the westward than usual in such numbers. The Wheatear is by no means common in Devonshire or Cornwall in the breeding season, and never plentiful in either during the migrative seasons; but is most frequently observed on the fallow lands in the autumn.

WHEEL-BIRD.—A name for the Nightjar.

WHEETIE-WHY-BIRD.—A name for the White Throat.

WHEWER.—A name for the Wigeon.

WHEY BEARD.—A name for the White Throat.

WHILK.—A name for the Scoter.

WHIM.—A name for the Wigeon.

WHIMBREL (*Numenius Phœopus*, LATHAM.)

Scolopax Phœopus, *Linn.* Syst. 1. p. 243. 4.—*Gmel.* Syst. 2. p. 657.—Numenius Phœopus, *Lath.* Ind. Orn. 2. p. 711. 6.—*Temm.* Man. d'Orn. 2. p. 604.—*Flem.* Br. Anim. p. 101.—Numenius minor, *Briss.* 5. p. 317. t. 27. f. 1.—Arquata minor, *Raii*, Syn. p. 103. A. 2. *Will.* p. 217.—Corlieu, ou petit Courlis, *Buff.* Ois. 8. p. 27.—Whimbrel, Br. Zool. 2. No. 177.—*Ib.* fol. 119.—Arct. Zool. 2. p. 462. B.—*Will.* (Angl.) p. 294.—*Edw.* t. 307.—*Lath.* Syn. 5. p. 123.—*Lewin's* Br. Birds, 4. t. 154.—*Walc.* Syn. 2. t. 134.—*Don.* Br. Birds, 3. t. 72.

Provincial.—Curlew-knot. Curlew-Jack. Half-Curlew. Stone-Curlew. Tang-Whaup.

The weight of this species is about fourteen ounces; length eighteen inches; the bill is above three inches in length, arcuated; upper mandible dusky; under part whitish at the base; in some, of a reddish flesh-colour; the head, neck, and breast, pale brown down the middle of each feather, margined with white, lightest on the forehead, and darkest on the crown of the head; chin and belly white; the irides are dusky, eyelids white; sides of the body barred with dusky; the upper parts of the body, scapulars, and wing coverts, dusky, margined with pale brown; quill-feathers dusky; the borders of the internal webs barred with white; the tail is dusky ash-colour, the middle feathers darkest, marked with six or seven dusky bars; legs dusky.

The Whimbrel has all the manners of the curlew, and indeed is so very like it in plumage, that in some places it has obtained the name of jack-curlew, from a supposition that it is the male of that bird; but it is by no means so plentiful a species.

It is a migrative bird, visiting our coasts in August, and continuing the winter, keeping together in small flocks of five or six; it has been suspected to breed on the coast of Sussex and Kent, especially about Romney Marsh; but that has not been ascertained with certainty. *It breeds in Zetland, on the exposed heaths, laying four or five eggs, but more generally in the Arctic Regions, and in the north of Asia. Temminck had specimens of this bird from North America and Bengal, which were in every respect the same as those killed in Europe.*

WHINCHAT (*Saxicola rubetra*, BECHSTEIN.)

*Saxicola rubetra, *Meyer*, Tasschenb. Deut. 1. p. 252. B.—Sylvia rubetra, *Lath.* Ind. Orn. 2. p. 525. sp. 58.—*Turton*, Br. Fauna, 1. p. 46.—Motacilla rubetra, *Linn.* Syst. 1. p. 332. 16.—*Gmel.* Syst. 1. p. 967. sp. 16.—Rubetra major, *Briss.* 3. p. 432. 26. t. 24. f. 1.—Œnanthe secunda, *Raii*, Syn. p. 76. A. 3.—*Will.* p. 234.—Grand Traquet ou Tarier, *Buff.* Ois. 5. p. 224.—*Ib.* pl. Enl. 678. f. 2.—Traquet Tarier, *Temm.* Man. d'Orn. 1. p. 244.—Braunkeliger, Steinschmatzer, *Bechst.* Naturg. Deut. 3. p. 684.—*Frisch*, t. 22. f. 1. B. male.—Whin-Chat, Br. Zool. 1. No. 158.—*Will.* (Angl.) p. 234.—*Lath.* Syn. 4. p. 454. 54.—*Mont.* Orn. Dict.—*Haye's* Br. Birds, t. 39.—*Lewin's* Br. Birds, 3. t. 109.—

Pult. Cat. Dorset. p. 9.—*Bewick's* Br. Birds, 1. p. 231. male.—*Flem.* Br. Anim. p. 67.—*Sweet's* Br. Warbler, p. 1.—*Selby*, pl. 48. fig. 2. p. 201.*

This species weighs about four drams and a half; length full five inches. The bill is black, the base beset with bristles; irides dark hazel; crown of the head, cheeks, hind-neck, back, and upper tail coverts, black, each feather margined with rufous-brown, which gives the bird a pretty spotted appearance; from the upper mandible a broad white streak passes over the eye, on each side, to the back of the head, where it almost meets; from the chin another white streak passes down each side of the neck; throat and breast light ferruginous; sides the same, but less bright; belly and under tail coverts white, tinged with the same; wing coverts and quills dusky black, partly edged with rufous-brown; on the wing, near the shoulder, is a large patch of white, and a smaller one of the same colour on the greater coverts of the primores; tail short, the feathers white more than half way from the base; the rest dusky black, slightly tipped and margined with pale rufous-brown; legs black.

This is a migrative species, appearing with us about the middle of April, inhabiting the same places as the chick-stone, and corresponding with that bird in all its habits, except that this does not remain with us during the winter. It is most frequently found about furzy places, where it breeds. It places its nest on the ground, amongst the grass, at the bottom of a bush, very artfully concealed, generally forming a path through the grass to it. This nest is composed of dried grass and stalks, with very little moss externally, and lined with fine dried grass. The eggs are generally six in number, entirely blue, without a spot; in which they differ from those of the chick-stone, which have a faint appearance of rufous, disposed in small close-set spots at the larger end.

This elegant little bird sings very prettily, and that not unfrequently suspended on the wing over the furze. It always sits on the top branches of a bush, watching for flies, its principal food; and, like the fly-catchers, will dart into the air, and return to the same spray repeatedly. It seems also a more local species than the chick-stone: is rarely found in the further part of Devonshire and in Cornwall, but is plentiful in Somersetshire, Wiltshire, and Gloucestershire, and the more eastern parts. Selby traced it also a considerable way into Scotland.

It is remarkable that many of the summer migrative species of warblers are not to be found in the west of England, and yet the whole of them are met with in Wiltshire, and from thence to the eastern coast, especially about London and the adjoining counties: from this it should appear that they come to that coast first from the continent;

that some species, finding there all their nature requires, do not ramble, while others spread to a greater distance.

The female is much less bright in colour; the white over the eye is yellowish; the wing coverts brownish, with scarce any marks of white, as in the male; weight about a dram more than the other sex.

WHITE BAKER.—A name for the Beam Bird.

WHITE EYE (*Nyroca leucophthalmus*, TEMMINCK.)

* Nyroca leucophthalmus, *Flem.* Br. Anim. p. 121.—Ferruginous Duck, *Penn.* Br. Zool. 2. p. 501.—*Mont.* Supp. Orn. Dict.—Anas ferruginea, *Penn.* Br. Zool. 2. p. 501.—Anas Nyroca, *Gmel.* Syst. 2. p. 542.—*Lath.* Ind. Orn. 2. p. 869.—Anas leucophthalmus, *Temm.* Man. d'Orn. 2. p. 876.—Tufted Duck, var. A. *Lath.* Syn. 6. p. 541. No. 79.—Olive-tufted Duck, Br. Miscel. 1. t. 21.—White Eye, *Flem.* Br. Anim. p. 121.—Custaneous Duck, *Mont.* App. to Supp. —Linn. Trans. 11. p. 178.—African Teal, *Lath.* Syn. 6. p. 555. and 541.—Die Weissaugige ente, *Meyer*, Tasschenb. Deut. 2. p. 526.

A specimen of this bird, shot in the north of England, measured in length about nineteen inches; bill long, and deep at the base, flattish at the point, and of a dark lead-colour, with the nail black. Head and neck small, of a dark ferruginous; the lower part of the neck behind, back, scapulars, coverts of the wings, and upper coverts of the tail, dusky-brown, with a slight tinge of ferruginous; on the chin is a small spot of dirty white; the lower part of the neck and breast chestnut; beneath which the body is white to the thighs, which, with the part between them as far as the vent, are brown, minutely speckled, becoming black about the vent; behind that, including the under tail coverts, white; the feathers on the sides under the wings, extending to the thighs, are bright ferruginous; the primary quills are whitish at their base, dusky at the tips, and on the outer webs, becoming less so as they approach the secondaries, which are wholly white, except the points, and form a white speculum on the wing when closed; the tertials, and the coverts immediately impending the secondaries, are dusky, bronzed with green; the other darker parts of the plumage partake more or less of metallic lustre in some points of view, especially the scapulars; the under scapulars are white; the tail is a trifle cuneiform, consisting of fourteen dusky-brown feathers slightly tinged with ferruginous; feet rather large, which, with the webs and legs, are lead-colour: the middle toe rather longer than the outer one; claws black.

The eyes appeared to have been yellow; but the sex could not be ascertained; the brightness of the plumage, however, should seem to indicate the gender to be masculine.

No bird has puzzled the British ornithologists more than the ferruginous duck of Mr. Pennant, which has by most of them been considered as the female of some other species. To Mr. Foljambe we are

particularly indebted for sending us both sexes of *Anas nyroca*, for examination. From the information of this accurate naturalist, this bird appears to be not so uncommon in the London market, as might be expected. Since it has been considered as British, seven or eight have been examined by Mr. Foljambe, several of which were fresh, and varying a good deal in plumage; some having no white either in the wings or under parts of the body: these were probably young birds.

The weight of the female was about thirty-six ounces; length eighteen inches; breadth the same. The male described above weighed thirty-three ounces and three-quarters, and measured in length sixteen inches and a half.

There is very little difference in plumage between the male specimen belonging to Mr. Foljambe, and that in our collection; but being in better feather, it is observable that on the lower part of the neck, the fine chestnut colour is interrupted by a dusky ferruginous collar, which, passing behind, becomes blended and uniform with the colour of the back; from the vent to the tail-feathers pure white; the rump and upper tail-coverts dusky black, coming down on the sides in the line of the vent, forming a strong contrast with the white feathers beneath.

The female very much resembles the other sex in plumage, but the colours are not quite so strong, especially the chestnut on the breast, and the white beneath is not so pure; the white on the chin is not so extended, nor is there any black that borders the white on the sides behind the vent; the legs, as well as the toes, are paler. The irides of both sexes are yellow.

This species belongs to the diving family of ducks, all of which have short wings that scarcely reach beyond the base of the tail when closed.*

WHITE SAND DUCK.—A name for the female Scaup Duck.

WHITE FALCON.—A name for the Jer Falcon.

WHITE FINCH.—A name for the Chaffinch.

WHITE-FRONTED GOOSE.—A name for the Laughing Goose.

WHITE-HEADED HARPY.—A name for the Moor Buzzard.

WHITE OWL.—A name for the Barn Owl.

WHITE PARTRIDGE.—A name for the Ptarmigan.

WHITE SPOONBILL.—A name for the Spoonbill.

WHITE STORK.—A name for the Stork.

WHITE TAIL.—A name for the Wheatear.

WHITE-TAILED EAGLE.—A name for the Eagle.

WHITE THROAT (*Curruca cinerea*, Brisson.)

* Sylvia cinerea, *Lath.* Ind. Orn. 1. p. 514.—*Ib.* 2. p. 514. 23.—Motacilla Sylvia, *Linn.* Syst. 1. p. 330.—*Gmel.* Syst. 1. p. 956.—Curruca cinerea, *Briss.* 3. p. 376. 4.—*Ib.* 8. 1. p. 463.—*Buff.* Ois. 5. p. 409. 3.—Bec-fin grisette, *Temm.* Man. d'Orn. 1. p. 207.—Fauvette grise, ou grisette, *Buff.* Ois. 5. p. 132.—*Ib.* pl. Enl. 579. f. 3.—Fahle Gramücke, *Bechst.* Naturg. Deut. 3. p. 534.—*Meyer*, Tasschenb. Deut. 1. p. 225.—Ficedulæ affinis, ou Spipola prima, *Raii*, Syn. p. 77. a. 6.—First Spipola, Aldrovandus, *Will.* p. 210.—*Raii*, Syn. 77. a. 1.—Rietwink, *Sepp.* Nederl. Vög. 3. t. p. 97.—White Throat, Br. Zool. 1. No. 160.—Arct. Zool. 2. p. 422.—*White's* Hist. Selb. p. 103.—*Lath.* Syn. 4. 19. p. 428.—*Mont.* Orn. Dict.—*Bewick's* Br. Birds, 1.—*Lewin's* Br. Birds, 3. t. 104.—*Pult.* Cat. Dorset. p. 9.—*Flem.* Br. Anim. p. 71.—*Sweet's* Br. Warblers, p. 5. *Turton*, Br. Fauna, 1. p. 45.—*Selby*, pl. 46. fig. 6. p. 178.

Provincial.—Nettle-Creeper. Muggy-Cut-Throat. Whey-Beard. Wheetie-Why-Bird. Muff. Charlie Muftie. Peggy. Peggy-White-throat. Churr. Whautie.*

This species weighs about four drams; length five inches and three-quarters. The bill dusky brown above, whitish beneath; irides yellowish; the whole upper parts, from head to tail, cinereous-brown; coverts of the wings darkest, bordered with brown, inclining to rufous; quills dusky, slightly edged with cinereous-brown; under parts, from chin to tail, greyish white, darkest on the breast and thighs; in some the breast has a rosy tinge; tail like the quills; outer feather white, except at the base of the inner web; legs pale brown. The female is like the male.

This is a very common species, visits all parts of the kingdom which are inclosed, about the middle of April, and constantly enlivens our hedges with its song, * which, Selby says, it utters upon the wing as it rises from the spray on which it has been perched, to a considerable height in the air, descending slowly to the same spot. In executing this movement, its flight is very peculiar; at this time it erects the feathers on the crown of the head.* The nest is made of goose-grass lined with fibres, and sometimes a few long hairs, but is of so flimsy a texture that it can afford little warmth to the eggs or young: this is generally placed in some low bush amongst nettles or other luxuriant herbs.

* We should be apt to deem it impossible to bring the dry brittle stems of catchweed, (*Valantia Aparine*,) into a smooth round form, yet this is the usual material of the frame-work employed by these little mechanics, though no sort of dry slender stem comes amiss. These are woven together in the bosom of some low bush of brambles or thorns, as Sepp has accurately figured it,[1] sometimes so slightly that the light shines through the meshes; while at other times the structure is

[1] Nederlandsche Vogelen, ii. Deel.

of considerable thickness. A few long horse hairs are wound neatly round the interior, along with some finer grass. In several nests in my possession, however, the hairs are in quantity sufficient to cover the basket-work of grass from the eye, contrary to Latham's opinion, that it is "not sufficient to form a covering."[1] Whence Mr. Bolton derived the notion that the White Throat uses spiders' webs as a binding material, I cannot imagine; for out of some hundreds I have examined, and twenty specimens now before me, I can detect nothing of this sort. It is the rough reflexed prickles of the catchweed which binds the exterior, and the hairs (probably glued with saliva) which keep the inside in shape. The chief distinction which I have detected in the nests of this species and of the babillard is, that the former for the most part makes use of a few roots in lining, which the latter never does, while it seems fonder than the former of working tufts of willow down into the brim of the nest. Latham has given a very bad figure of the babillard's nest, the worse also, as it agrees not with his own description.*[2] The eggs are four or five in number, of a greenish white, speckled all over with light brown or ash-colour, in great variety as to shade and thickness of sprinkling; weight about thirty grains.

It is proper in this place to remark, that we have more than once killed a bird somewhat resembling the above; weight and length the same; irides not so yellow; the whole upper parts rufous brown; the coverts of the wings and quills next the body deeply margined with bright rufous; throat and belly silvery white; breast inclining to brown, darker on the sides; outer feathers of the tail like the above. The common White Throat feeds on insects and berries, frequenting our gardens in the summer for the sake of cherries and currants.

*"A very lively and interesting species," says Sweet, "and one of the easiest preserved; its song also, in my opinion, cannot be surpassed by any bird whatever; it is both lively, sweet, and loud, and consists of a great variety of notes. One that I at present possess will sing for hours together against a nightingale, now in the beginning of January, and it will not suffer itself to be outdone. When the nightingale raises its voice, it does the same, and tries its utmost to get above it: sometimes, in the midst of its song, it will run up to the nightingale, and stretch out its neck, as if in defiance, and whistle as loud as it can, staring it in the face: if the nightingale attempts to peck it, away it is in an instant, flying round the aviary, and singing all the time. In a

[1] Gen. Hist. of Birds, vii. 48. See our figure, p. 15.

[2] Architecture of Birds. Chapter on Basket-making Birds, p. 232.

wild state, the present species generally visits hedges and gardens. It arrives in this country about the middle of April, and is often heard singing in a thicket, or in the middle of a hedge; sometimes it mounts up in the air a little way, or flies from one hedge to another, singing all the time. It is readily taken in a trap baited with a living caterpillar or butterfly. One that I caught last spring sang the third day after being in confinement, and continued to sing all through the summer; but this was most likely in consequence of a tame one being with it, which also sang at the same time. In their native state, these birds feed chiefly on small insects, and a few sorts of fruit, strawberries and raspberries in particular; they are very partial to the different species of aphides, with which almost every tree is covered some time or other in the summer; they are also very fond of the smaller species of butterflies, and the common house-fly (*Musca domestica;*) they soon take to feed on bruised hemp-seed and bread, and also on bread and milk; I have known them to feed on it the day they were caught. Fresh meat, both fat and lean, they also like very well for a change, and the yolk of a boiled egg, and a roasted apple in winter. They peck up a great quantity of small gravel, of which there should be always a constant supply in their cage or aviary; if they are without this, they soon get unwell. Fresh water should also be given them every day in a saucer or a pan, large enough for them to get into, as oftentimes they wash themselves two or three times a day."*

WHITE THROATED DUCK (*Oidemia Leucocephala*, Fleming.

*Canard Couronné, *Temm.* 2. p. 859.—Anas Leucocephalus, *Gmel.* Syst. 1. p. 516.—*Lath.* Ind. Orn. 2. p. 858.—Oidemia Leucocephala, *Flem.* Br. Anim. p. 119.—Anas Mersa of Pallas, *Reis.* 2. p. 713.—*Gmel.* Syst. 1. p. 520.—White-headed Duck, *Lath.* Syn. 6. p. 478.—Ural Duck, *Ib.* 6. p. 514.—Weisskopfigi Ente, *Bechst.* Tasschenb. Deut. 2. p. 444.—*Meyer,* Tasschenb. 2. p. 506.—*Naum.* Vög. Nochter, t. 40. f. 79 and 80. correct figures of the male and female.—Anatra D'Iverus, *Stor.* degl. ucc. 5. p. 577. fig. of themale.—*Mont.* Supp. Dict.

The figure of a duck, under the above name, is given in the second volume of the British Zoology, t. 96, which our author was disposed to consider a variety of the scoter, the female of that species having been seen with the throat white. Temminck and Fleming, however, both agree in giving it as a distinct species. The length is described to be about twenty-two inches; breadth thirty-four; bill blue, with the middle at the base hollow; irides yellow; feet greyish brown; crown, nape, and lower part of the neck black; front cheeks and throat white; breast, upper parts and sides dark red, waved with dusky; rump reddish purple; tail long, black, and conical, with the feathers grooved; the plumage below of a reddish white. The female has the crown and

nape brown; throat yellowish white; bill and legs reddish. "This species," says Temminck, "is found to inhabit the salt water lakes of the eastern parts of Europe; and is very plentiful in Russia, upon the lakes and rivers of which country it constructs a nest of reeds or rushes, floating upon the water; in this nest the female lays eight eggs of a pale green.*

WHITE WAGTAIL.—A name for the Winter Wagtail.

WHITWALL (*Picus major*, LINNÆUS.)

Picus major, *Linn.* Syst. 1. p. 176. 17.—*Gmel.* Syst. 1. p. 436. sp. 17.—Fauna Suec. No. 100.—*Lath.* Ind. Orn. 1. p. 228. 13.—Picus varius major, *Raii*, Syn. p. 43. A. 4.—*Will.* p. 94. t. 21.—*Briss.* 4. p. 34. 13.—Le Pic Varié ou Pic Epeiche, *Buff.* Ois. 7. p. 57.—*Ib.* pl. Enl. 196. and 595. male and female.—*Temm.* Man. d'Orn. 1. p. 595.—Die Bunt-specht, *Bechst.* Naturg. Deut. 2. p. 1022.—*Meyer*, Tasschenb. Deut. 1. p. 121.—*Ib.* Vög. Deut. 1. t. male and female.—*Frisch*, t. 36. male.—Greater-spotted Woodpecker, Br. Zool. 1. No. 85.—Arct. Zool. 2. No. 162.—*Will.* (Angl.) p. 137. t. 21.—*Lewin's* Br. Birds, t. 47.—*Lath.* Syn. 2. p. 564. 12.—*Ib.* Supp. p. 107.—*Mont.* Orn. Dict.—*Pult.* Cat. Dorset. p. 6.—*Don.* Br. Birds, 2. t. 37.—*Bewick's* Br. Birds, 1. t. 118.—*Flem.* Br. Anim. p. 91.—*Selby*, pl. 38. fig. 2. p. 106.*

The weight of this species is about two ounces and three-quarters; length nine inches; the bill is dusky, an inch and a quarter long; irides reddish brown; the forehead dirty white; crown of the head black; hind part of a deep crimson; the cheeks are white, beneath which is a black line from the lower mandible to the back of the head, from the middle of which another line of the same colour runs down on each side, and almost meets at the upper part of the breast; on each side the back of the neck is a white spot; the back, rump, coverts of the tail, and lesser coverts of the wings are black; the scapulars, and some of the greater coverts adjoining, are white; the quill-feathers are black, marked with white spots on each web; the throat and under parts are dirty white; vent bright crimson; the four middle feathers of the tail are black, the rest more or less white towards the point, marked with black spots; legs lead-colour. The female differs only in having that part of the head black, which in the male is red.

The Whitwall is less frequent in England than the poppinjay; its habits and manners nearly the same, except that it rarely descends to the ground in search of food, and that it more frequently makes that jarring noise for which the woodpeckers are distinguished, than either of the other species, especially when disturbed from the nest, which we had an opportunity of observing. It was with difficulty the bird was made to quit her eggs; for notwithstanding a chisel and mallet were used to enlarge the hole, she did not attempt to fly out till the hand was introduced, when she quitted the tree at another opening. The eggs were five in number, perfectly white and glossy, weighing about one dram,

or rather more. These were deposited two feet below the opening, on the decayed wood, without the smallest appearance of a nest.

As soon as the female had escaped, she flew to a decayed branch of a neighbouring tree, and there began the jarring noise before mentioned, which was soon answered by the male from a distant part of the wood, who soon joined his mate, and both continued these vibrations, trying different branches, till they found the most sonorous. Although not so numerous as the poppinjay, this species is generally diffused though the woody districts of our Island. *Selby saw them on the banks of the Spey, and amid the wild scenery of the Dee.*

WIGEON (*Mareca fistularis*, STEPHENS.)

Anas Penelope, *Lath.* Syn. and Supp. 2. p. 354.—Linn. Trans. 4. p. 111. t. 13. f. 9. (Trachea.)—Anatra Mangeana, *Stor.* degl. ucc. 5. p. 585. and 6.—Anas fistularis, *Briss.* 6. p. 391. 21. t. 35. f. 2.—*Ib.* 8vo. 2. p. 464.—Pleifente, *Bechst.* Naturg. Deut. 4. p. 1109.—*Meyer,* Tasschenb. Deut. 2. p. 541.—*Frisch,* Vög. t. 164. old male. t. 169. young male.—Canard siffleur, *Buff.* Ois. 9. p. 169. t. 10. 11.—*Ib.* pl. Enl. 825. a male.—Wigeon, Whewer, Whim, Br. Zool. 2. No. 268.—*Ib.* fol. 157. Addend. t. Q. 157.—Arct. Zool. 2. p. 574. K.—*Will.* (Angl.) p. 375. t. 72.—*Albin,* 2. t. 99.—*Lath.* Syn. 6. p. 518. 63.—*Lewin's* Br. Birds, 7. t. 251.—*Walc.* Syn. 1. t. 71.—*Pult.* Cat. Dorset. p. 21.—*Bewick's* Br. Birds, 2. p. 352.—*Flem.* Br. Anim. p. 125.

Provincial.—Pundle. Whew. Yellowhall.

This species weighs about twenty-four ounces; length twenty inches; the bill is narrow, of a bluish lead-colour, tipped with black; irides hazel; the top of the head, from the bill and chin, yellowish cream-colour; the rest of the head and upper part of the neck bay, speckled with black; breast vinaceous; belly white; upper and under tail coverts black, edged with rufous above and with white beneath; back, scapulars, and sides under the wings, black and white in fine undulated lines; coverts of the wings dusky brown, with pale edges; quills dusky; secondaries green on the outer webs, tipped with black; those next the body have the margin of the outer webs more or less white; the tail is cuneiform; the two middle feathers pointed, and considerably longer than the rest; these are dusky, dashed with cinereous; the rest cinereous, edged with rufous brown; legs and feet dusky lead-colour, the latter small.

This bird, like all the duck tribe, is subject to variety, according to age; in some the forehead is almost white, and the feathers on the back and sides mottled with brown; the wing coverts mixed with white.

The female is about seventeen inches in length; the bill is like that of the male, but not quite so blue; irides similar; the head and neck speckled with dusky and ferruginous, by reason of each feather being minutely barred; the feathers of the upper part of the back dusky,

with two or three slender bars of ferruginous brown; scapulars dusky black with ferruginous margins; breast plain vinaceous brown; the speculum of the wing is not green as in the male, but wholly black, except the tips, which are white; two of the tertials are margined with white on the outer web; those next the body with rufous margins; many of the smaller coverts, which are brown, are margined with white; the tail consists of fourteen feathers; legs like those of the male.

* The labyrinth at the bottom of the *trachea* of the male, very much resembles that of the pintail, being bony and globular; but differs in some respects, when examined together, in its attachment to the side of the windpipe; but which the figures, given in the Linnæan Transactions quoted, will better explain.

It has been generally asserted that the Wigeon will not breed in confinement, or at least that the female will not make a nest and perform the act of incubation; but that she will lay eggs, which are generally dropped into the water.

Lord Stanley informs us that he procured a female pintail in London that had bred in confinement; this bird paired with a male Wigeon in his Lordship's menagerie, and produced the first year nine or ten young, all of which were destroyed by the rats. The second year she produced six young, four of which are now living, and are above a year old. It is remarkable that this pintail was so tenacious of her nest in the advanced state of incubation, as to suffer herself to be lifted to examine the eggs, and continued to effect the hatching of them. In the last year the same bird produced eggs, but from some unknown cause forsook them.

The hybrid birds were much plainer than the male pintail, but more like the female, with a little of the head of the male Wigeon. The male has the posterior parts somewhat like the male pintail, but the middle feathers of the tail are not so long.*

The Wigeon is found in most parts of Europe; breeds in the more northern parts. Visits England in the autumn, when great numbers are caught in our decoys for the table, being esteemed an excellent bird. It also frequents our rivers and salt-water inlets in small flocks.

WILD DUCK.—A name for the Duck.

WILD GOOSE.—A name for the Bean Goose.

WILD SWAN (*Cygnus ferus*, Ray.)

Anas Cygnus, *Linn.* Syst. 1. p. 194.—Cygnus ferus, *Raii*, Syn. p. 136. A. 2.—*Will.* p. 272. t. 69.—Cygne sauvage, *Buff.* Ois. 9. p. 3.—*Temm.* Man. d'Orn. 2. p. 828.—Wild Swan, Br. Zool. 2. No. 264.—*Ib.* fol. 149. t. Addend.—*Will.*

(Angl.) p. 356. t. 69.—*Edw.* t. 150.—*Flem.* Br. Anim. p. 126.—Whistling Swan, Arct. Zool. 2. No. 469.—*Ib.* Supp. p. 75.—*Lath.* Syn. 6. p. 433.—*Ib.* Supp. p. 272.—*Lewin's* Br. Birds, 7. t. 236.—*Walc.* Syn. 1. t. 55.—*Pult.* Cat. Dorset. p. 19.

Provincial.—Elk. Hooper.

This is a very distinct species from the common or mute swan, of which we shall take notice in this place merely to shew the difference; for as that bird is confined to a half-domesticated state, and is real property, it cannot claim a place amongst the wild or native birds of this country.

The Wild Swan is inferior in size to the other species; the weight from fifteen to twenty-five pounds; length four feet ten inches; breadth seven feet; the bill is between four and five inches in length, two-thirds of which is yellow from the base, and bare of feathers up to the eyes; the end part is black, running to an angle up the middle; irides of a very light yellow. The whole plumage is of a pure white; in some there are a few marks of faint rust-colour on the head; the tail consists of twenty feathers; legs black.

The tame swan is not only much superior in weight, but is at once distinguished by a large black callous knob on the base of the bill; but the more essential distinction is in the extraordinary convolution of the windpipe, peculiar to the Wild Swan. This enters a large cavity in the breast bone, to the depth of more than two inches; then returns and forms a junction with the lungs.

Dr. Latham has given a very excellent figure of this wonderful formation, in an essay on the *trachea* of birds, in the fourth volume of the Linnæan Transactions. This, which both sexes possess, makes a material distinction in the two species. What peculiar use this is of, we are at a loss to determine. The common swan is seldom heard to make any noise, or only a very faint one; whereas this bird has a prodigiously loud call, that may be heard to a great distance, which it frequently utters as it is flying, and which resembles greatly that of the cuckoo.

Having killed one of this species out of a flock of ten or twelve, its companions flew round several times, making a most melancholy cry before they flew off. This put us in mind of the solemn dirge of the dying swan described by the ancient poets, and may possibly have given rise to those accounts; only by them it is made to be sung by the dying bird.

*A female Wild Swan shot near Bridgewater, in the year 1805, got the better of her wound, and was kept by Mr. Stone, with his geese, for nearly two years, during which time she laid one egg. This beautiful and docile bird is now (1813) alive and in high health, living with many other sorts of ducks in the greatest harmony. Towards

the spring she becomes more clamorous, and impatient of confinement; but at all times will approach those persons in the habit of feeding her, and will take food from the hand, at the same time uttering those plaintive and harmonious notes for which the species have been remarkable, and which are always attended with a singular jerk of the head. She usually carries her neck straight and erect, either upon the water, or when stationary on land; but in walking, the head is lowered, and the neck reclining over the back. In the season of love she frequently flaps along the surface of the water, and would undoubtedly fly, if the precaution of annually cutting the feathers of one wing was omitted; for whatever might have been the wound that was the cause of captivity, nature has performed a perfect cure. Her nature is gentle, timid, and sociable; she will follow those with whom she is acquainted from one side of the menagerie to the other, especially ladies of the family, dressed in white. She is often turned out of her course by a pugnacious male sheldrake, and acts only offensively when food is the object, and where resentment is not expected. She eats but little grass on land, but will devour aquatic plants occasionally; barley, however, is her principal food, and she never attempts to touch bread, which is sometimes thrown to other birds; nor will she devour small fish, which the diving ducks greedily eat. The base of the bill in this specimen is, as usual in adults, of a bright yellow.

This species visits the lakes of Scotland every winter, but comes more southward only in severe weather. Some few are said to breed in the Orkney isles. It is found in all the northern countries, Iceland, Lapland, the deserts of Tartary, Siberia, and as far as Kamtschatka; also in America, and it is not uncommon in Hudson's Bay.*

WILLOCK (*Uria Troile*, LATHAM.)

Colymbus Troile, *Linn.* Syst. 1. p. 220. 2.—*Gmel.* Syst. 2. p. 585.—Colymbus minor, *Ib.* 1. 585.—Uria, *Briss.* 6. p. 70. 1. t. 6. f. 1.—*Ib.* 8vo. 2. p. 377.—Uria Lomwia, *Brunn.* 27. p. 108.—Uria Troile, *Lath.* Ind. Orn. 2. p. 796. 1.—*Temm.* Man. d'Orn. 2. 921.—Lomwia Hoieri, *Raii*, Syn. p. 120. A. 4.—*Will.* p. 244. t. 65.—Colymbus Macula nigra pone ocula, *Sander.* 13. p. 192.—Le Guillemot, *Buff.* Ois. 9. p. 350. t. 25.—Foolish Guillemot, Br. Zool. 2. No. 234.—*Ib.* fol. 138. t. H. 3.—Arct. Zool. 2. No. 436.—*Will.* (Angl.) p. 324.—*Albin*, 1. t. 84.—*Edw.* t. 359. f. 1.—*Lath.* Syn. 6. p. 329. 1.—*Ib.* Supp. 265.—*Lewin's* Br. Birds, 6. t. 220.—*Pult.* Cat. Dorset. p. 17.—*Walc.* Syn. 1. t. 96.—*Don.* Br. Birds, 2. t. 28.—*Flem.* Br. Anim. p. 134.—*Mont.* Orn. Dict. 1.—Lesser Guillemot, *Penn.* Arct. Zool. Supp. 69.—*Mont.* Orn. Dict. and Supp.

Provincial.—Guillem. Sea Hen. Scout. Kiddaw. Murre. Lavy. Tinkershire. Lungy. Murot. Scuttock. Murse. Strany.

This species weighs about twenty-four ounces; length seventeen inches. The bill is black, three inches long, strait, sharp pointed; inside of the mouth yellow; irides dusky. The base of the bill is

covered with soft feathers, which, with the head, neck, back, wings, and tail, are of a deep mouse-coloured brown; the tips of the lesser quill-feathers white; the whole under side of the body pure white; on the sides under the wings a few dusky lines; from the eye to the hindhead is a singular line occasioned by a division of the feathers; legs dusky.

These birds are found in great abundance in various parts of our high rocky coasts from north to south, and in some places they perfectly swarm. It is not uncommon to see hundreds sitting upon their eggs on the ledge of a rock in a line, nearly touching each other.

The female lays but one egg, of a greenish colour, blotched and marbled with dusky, so variable that scarce two are seen alike. They seldom quit their eggs unless disturbed, but are fed with sprats and other small fish by the male. In places where they are seldom disturbed it is with difficulty they are put to flight, and they may sometimes be taken with the hand; others flutter into the water, appearing not to have much use of their wings. They begin to settle on their breeding places early in May, and wholly leave the southern parts of the kingdom by the latter end of August.

The razorbill is frequently found in the same situation, but seldom breeds on the same cliff, at least not close to or intermixed with the groups of guillemots. These birds are indiscriminately called Willocks and Murres in some parts. The young seldom leave the rocks till they can fly, and are of the same colour with the parent birds.

The lesser guillemot is the female, and is described to be less than the male; its weight is eighteen or nineteen ounces; length about sixteen inches. Bill and irides the same as the last. The upper part of the head, hind part of the neck, back, wings, and tail are black; from the eye a dusky streak pointing backwards; the tips of the secondary quill-feathers are slightly marked with white; the cheeks, throat, and all beneath, white; along the sides and on the thighs a few dusky streaks; legs black.

A singular variety of this species was taken alive in the month of March. Its length was sixteen inches. The upper parts of the plumage where this species is usually black, are in this bird of a pale cinereous brown, the margins of the feathers palest; quills the same, with pale tips; the secondaries, as usual, tipped with white; the under parts, cheeks, and throat, as usual, white; legs dull orange-brown.

This bird devoured flesh as well as fish, cut into slender pieces, and doubtless would have lived on fresh water, had not some defect existed that caused its capture, and which probably occasioned its death, after ten days' confinement in the menagerie. It had in this short time be-

come docile, and would come to the side of the pond to be fed; this gave us an opportunity of observing its motions when diving for its food; and it was evident that all its evolutions under water were performed by its wings alone, the legs being thrown back. It is literally flying in water, for the wings have exactly the same action, except that they are not quite so much extended, nor so rapidly moved as when flying in the air. By thus converting its short wings into fins, its progressive motion is rapid, and the body is easily turned by the exertion of one wing more or less than the other, for neither the tail nor the legs gave it the least bias. It is only on the surface of the water that the legs are used as oars.

*It has been ascertained, beyond a doubt, that Montagu was mistaken in his opinion that the guillemot, and lesser guillemot, were a distinct species; the opinion of Dr. Fleming, who had the best opportunities of observation, being corroborated by that of Temminck; yet it may not be unacceptable to some readers, to peruse our author's very plausible reasons for a contrary opinion.

In the latter end of January, 1805, a very cold and severe winter, in the west of England, several of the foolish guillemots were shot, and one, examined by Colonel Montagu, was found, upon dissection, to be a female, weighing about thirty ounces. This had the exact plumage of those which frequent our rocks in summer, and in every respect so exactly corresponded with the summer dress of the Willock, (*Uria troile,*) that to him it seemed to prove, beyond all doubt, that the lesser guillemot is perfectly distinct, and that the Willock, at no season, is differently marked; the colour, even in January, not being black, as in the lesser species, but of the usual dark brown.

In support of a contrary opinion, a young Willock, full grown, excepting the wing and tail, examined by him, had the plumage on the lower part of the back and rump, brown mixed with grey; some of the lesser coverts of the wings the same; the feathers of the tail margined and tipped rufous-white; the upper part of the neck before, and the throat, as far as the dark colour usually extends, was mottled black and white; these markings pass round the sides of the head behind the eyes, and meet behind the nape in an obscure narrow band; the feathers on these parts being white, tipped with black, not distinctly marked, some black and others white. The rest is like the foolish guillemot, but darker about the head and hind neck. The inside of the mouth yellowish flesh-colour; length of the bill to the nostrils, one inch and a half; to the gape two and three-quarters. Admitting this to be the young of the foolish species, of which there can be no doubt, as no other

is known to breed on the coast where it was taken, the extraordinary weight of this bird can only be accounted for by supposing that it was highly fed, while the old birds at this season are more exhausted; but we have had old birds of superior weight sometimes.

It now appears, he thinks, that this species, like the razor-bill, is at first, in its nestling feathers, like the parent birds, destitute of any white about the head and neck, but that after they take to the water, and before they can fly, a partial moulting takes place, and the throat and fore part of the neck become spotted with white feathers tipped with dusky, and which in a slight degree extend round behind the upper part of the neck. Now it must be remarked by every naturalist, that these newly-acquired white feathers tipped with dusky, must be again cast, and be replaced by entirely white ones, in order to render this bird similar in plumage to the lesser guillemot; a circumstance, which, if not impossible, is highly improbable. Besides, if these two species were at any time by accident to be found alike in plumage, no one who has had the opportunity we at this moment have, of placing all the species before him, the two guillemots and two auks, which have caused such discrepancy of opinion, together with their young at different ages, would hesitate a moment in deciding the matter.

The size and weight of the spotted young guillemot, is essentially greater than the lesser guillemot is ever found to be; the neck is longer, and, as an especial mark of distinction, the bill of this young bird is full one-third longer, and is furnished with an indenture in both mandibles near the tip. This is an obvious mark of distinction, not, we believe, before noticed in the foolish guillemot; and of which the Willock is wholly destitute in the under mandible, though on the upper, nearer to the point, there is a very slight inclination to an indenture.

The circumstance of variation of colour in particular parts of the plumage in some of these species, especially the change to that of white, is well exemplified in the black guillemot, which has been found to vary so much, that the older naturalists had formed of them several species; but no ornithologist of the present day can doubt the identity of the same bird in all its various plumage, by size, and other immutable characters. Of the female, again, which has been called the lesser guillemot, it is said that they are found in great abundance on the coasts of Scotland, extending even to the Orkney and Shetland Islands, and are sparingly scattered over the southern parts of the kingdom. Thus they are contented with a boreal station, even in the colder months, and never seek a southern region, but mostly continue on our northern

shores, where they are never impeded by ice from diving after their favourite prey, the sprat, which is there found in abundance throughout the winter. The foolish guillemot and the razor-bill, on the contrary, are indigenous to this country, breed on most of our higher cliffs that form a barrier to the ocean, and, after performing the great dictates of nature, invariably leave our shores, and retreat to some more southern climate; nor is one to be found amongst the lesser guillemots and black-billed auks, in the winter season, so far north as Scotland, an accidental maimed bird excepted; and only one or two instances have occurred, in which the foolish guillemot was found on the most southern parts of the island (Devonshire) at that season. Thus has nature assigned to these birds their limited stations, by forming them of different temperaments; the more tender species that winter in the southern parts of Europe, and on the coasts of Africa, return with the spring to our temperate climate, and, as it were, push on the hardier species to their northern destination; and in part supply the place of the foolish guillemot and razor-bill during the winter, and the reverse is the consequence of our nearer approach to the sun.

It is, besides, contrary to every principle of reasoning upon natural causes, to suppose, that when the foolish guillemot and razor-bill retire in the autumn, from the southern parts of England, they should go to the north of Scotland, and be converted by a change of plumage into the two former. The supposition that any bird should migrate northward to pass the winter, is in direct violation of the actual cause of the propensity to migrate. Every species of animal that shifts its quarters with the seasons, breeds in the higher, and passes the winter in the lower latitudes. Those who may have formed an opinion that the two first are the young of the others, should be asked to produce an instance of so unnatural a case, as that of all the young of any species remaining behind to winter in a northern country, while the old birds seek a more southern climate. Besides, those who favour such an opinion must go further, for they must also believe that when the old birds leave England in the autumn, to winter along the shores of the southern parts of the Continent, the young birds take a contrary direction, and accumulate in the north of Scotland, as far as Zetland; in which parts they are infinitely more abundant than any where further south. More need not be said to convince any reasoning mind of the unphilosophical principle of such an opinion. Whatever variation may have appeared in the change of plumage of some, for which we cannot so readily account, we may be assured our safest guide are the habits, and those alone must convince us of the difference of the species

in question, were all other distinctions wanting. Myriads of Willocks and razor-bills resort to the lofty promontories of the southern as well as the northern shores of Great Britain; and, when these retire, not a lesser guillemot or a black-billed auk are to be seen in their place for a month or six weeks, and then a few stragglers only, for they are never common in the south of England.*

WILLOW LARK.—A name for the Sedge-Bird.

WILLOW WREN.—A name for the Hay-Bird.

WINDHOVER.—A name for the Kestrel.

WINDLE.—A name for the Redwing.

WINDOW SWALLOW (*Hirundo urbica*, LINNÆUS.)

*Hirundo urbica, *Linn.* Syst. 1. p. 344. 3.—*Gmel.* Syst. 1. p. 1017. sp. 3.—*Lath.* Ind. Orn. 2. p. 573. sp. 3.—Fauna Suec. 1. No. 271. 1.—Hirundo rustica sive agrestis, *Raii*, Syn. p. 71. A. 2.—*Will.* p. 155. t. 39.—*Briss.* 2. p. 490. 2.—Hirondelle a Cul-blanc ou de Fenêtre, *Buff.* Ois. 6. p. 614. t. 25.—*Ib.* pl. Enl. p. 542. f. 2.—Hirondelle de Fenêtre, *Temm.* Man. d'Orn. 1. p. 428.—Houssch-walbe, *Bechst.* Naturg. Deut. 3. p. 915.—*Meyer*, Tasschenb. Deut. 1. p. 277. *Frisch*, t. 17. f. 2.—Martin, or Martlet, Br. Zool. 1. No. 169.—Arct. Zool. 2. No. 331.—*Albin*, 2. t. 56.—*Lewin's* Br. Birds, 3. t. 123.—*Will.* (Angl.) p. 212. t. 39.—*Lath.* Syn. 4. p. 564. 3.—*Ib.* Supp. p. 192.—*Mont.* Orn. Dict.—*Ib.* Supp.—*Walc.* Syn. 2. t. 251.—*Pult.* Cat. Dorset. p. 13.—*Bewick's* Br. Birds, 1. t. 261.—*Low's* Fauna Orcad. p. 73.—*Shaw's* Zool. 1. p. 84.—*Flem.* Br. Anim. p. 61.—*Selby*, pl. 42. fig. 2. p. 129.*

This species is rather inferior in size to the chimney swallow. The length is about five inches and a half; bill black; irides hazel; the whole upper parts are of a glossy blue black, the rump excepted, which, within the under parts from chin to vent, is white; the tail is blue-black, and forked; the legs are covered with a white down; the claws white. This well-known species visits England in the spring, rather later than the common swallow. It first makes its appearance in low, warm situations, and, if the weather is fine, begins building early in May. The nest is generally placed under the eave of a house; sometimes against rocks or cliffs contiguous to the sea. It is built with mud externally, and lined with feathers, with a small hole on one side for entrance.

*The ancient account of the Window Swallow's nest, given by Pliny, runs thus: "Surely in no one thing is the wit of sillie birds more admirable. The swallows frame their nests of clay and earth, but they strengthen and make them fast with straw. In case at any time they cannot meet with soft and tough clay, for want thereof they drench and wet their feathers with good store of water, and then bestrew them over with dust."[1]

However plausible this mode of making building-mortar may ap-

[1] Holland's Pliny, p. 288.

pear, I have no hesitation in pronouncing it to be altogether fabulous. Swallows, I admit, may be frequently seen both drinking and washing on the wing, and also collecting mud from cart-ruts and other places; but never carrying water in their bills, or on their feathers, neither of which are they capable of performing; for they want the necessary muscles to carry water in their mouths as we can do, and whatever water might adhere to their feathers, would be instantly shaken off in flying, let the dust, which requires sprinkling, be as near as it might, for, according to my observation, it runs off from them as it does from the feathers of ducks and other water fowl. Besides their not being able to find materials sufficiently moist, is a supposition altogether gratuitous and improbable, with respect to a bird of such powerful wing, whose flight is so excursive, and usually in the vicinity of water.

That some liquid is requisite, however, to make their mortar more adhesive, will be evident to any person who will take the trouble of picking up a little mud from the same place where the swallows collect it, and trying to make it adhere to a wall as they do in their nests. I have more than once tried such an experiment without success, and have thence been led to conclude that the swallows employ some salivary fluid besides the water which may be in the mud. That this is the fact, and not a fancy, may be easily proved, as it is, in numerous instances; and it is not adverting to this, that the building of nests has been so ill understood by naturalists, and so many fanciful accounts of the matter have been promulgated. I have further ascertained, by examining nests during the process of building, that the portion of clay just added, is considerably more moist than that of the ruts from which it has been taken, a stronger proof that the bird moistens it with saliva, than is afforded by merely finding larger salivary glands, which is proved by dissection to be the case.[1]

Pennant says he has seen them build in cliffs overhanging the sea. I am acquainted with one locality where they build in a similar manner, at the beautifully romantic dell of Hawford, near Catrine, in Ayrshire, where the river Ayr winds among wooded rocks, from one to three hundred feet above its channel. There the nests are few in number, and not crowded together, but scattered singly among the cliffs. In this country, at least, the species is only subgregarious, parties of some three, four, or half a dozen, selecting the same window or several windows on the same frontage. The greatest number I ever

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[1] Architecture of Birds. Chap. on Mason Birds, p. 101.

saw was about fifty nests, arranged in a contiguous line, under the north eave of Mr. Heneage's stables, at Compton House, Wiltshire.[1]

In consequence of our associating the appearance of the Swallow with the infancy of summer, when the woods and fields are awakened from their winter sleep, by the increasing warmth of the sunshine, it is, I imagine, a very general favourite. Some of our northern neighbours, however, it would appear, have a dislike to the Window Swallow, (*H. urbica,*) and have even gone so far as to endeavour to banish it, by preventing it from building. In this vein we are instructed, by a recent periodical writer, how to cut their acquaintance, and discard them. It appears, he says, from experiments made at Granton, that if the places in the corners of windows, and under eaves, where the swallows build, are well rubbed with oil and soft soap, they will not be able to make their clay adhere to the wall, and being once foiled, they will not renew their attempt for some years afterwards.

There can be no possible objection to this being tried by any swallow-hater who chooses; but I am certain that no sincere lover of nature—nobody who has music in his soul, and delights, as the poet Gray did, to hear

> "The swallow twittering from his straw-built shed,"

will be apt to adopt the expedient. Old Anacreon might perhaps have been glad of the suggestion, when, being disturbed in some of his morning dreams, he threatens to clip the swallow's wings, and even to cut out its tongue:—

> "Silly swallow! prating thing,
> Shall I clip that wheeling wing;
> Or, as Tereus did of old,
> (So the fabled tale is told,)
> Shall I tear that tongue away—
> Tongue that uttered such a lay!"[2]

But he would soon have repented of the barbarity; or, rather, he would have stopped short at the recollection of the swallow's being the herald of summer, exclaiming—

> "Gentle bird! we find thee here.
> When Nature wears her summer vest,
> Thou com'st to weave thy simple nest;
> And when the chilling winter lowers,
> Again thou seek'st the genial bowers
> Of Memphis, or the shores of Nile,
> Where sunny hours of verdure smile."

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[1] Architecture of Birds. Chap. on Mason Birds, p. 96.

[2] Moore's Transl. of Anacreon. Ode 12.

These northern swallow-haters, we may, moreover, presume, are either unacquainted, or have no relish for, one of the finest passages in Macbeth,—unrivalled in the whole circle of poetry, as a transition of repose from the turmoil of dark passions, to the soft quiet of summer,—in which our little bird forms the gem of the picture, as correct too as it is beautiful :—

> " ———————— This guest of summer,
> The temple-haunting martlet, does approve
> By his lov'd mansionry, that the heaven's breath
> Smells wooingly here : no jutty, frieze,
> Buttress, nor coigne of vantage, but this bird
> Hath made his pendent bed and procreant cradle :
> Where they most breed and haunt, I have observed
> The air is delicate." [1]

Should our swallow-haters be religious, we may remind them that the sweet Psalmist of Israel did not think the temple degraded by affording them shelter :—" Yea, the sparrow hath formed an house, and the swallow a nest for herself, where she may rear her young—even thine altars, O Lord." [2]

The eggs are four or five in number, of a pure white. The young never quit the nest till they are able to fly well, and are fed by the old birds, frequently on the wing. At the time of incubation, and when the young are first hatched, it is not uncommon to see both the old birds in the nest together, in which place the act of consummation is performed.

These birds, like the rest of the genus, are constantly on the wing, are rarely seen to perch on a tree, and seldom settle at all during the day, except in the autumn, just before their winter migration, at which time they assemble in large flocks on the roofs of houses and other buildings, exposing themselves to the influence of the sun ; but we have never been able to ascertain where they roost at night after they have forsaken their nests ; but most probably in holes under the tiles and thatch of houses.

Much has been said by various authors concerning the winter state and abode of this bird, and its congeners. To attempt to refute the absurd idea of their immersion, would be a trespass on the patience of our readers. It must, however, be observed, that their internal formation absolutely prevents it ; nor is there any occasion to resort to such unnatural means, when no birds are furnished with more ample powers

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[1] Act i. sc. 6. [2] Psalm. lxxxi. 3.

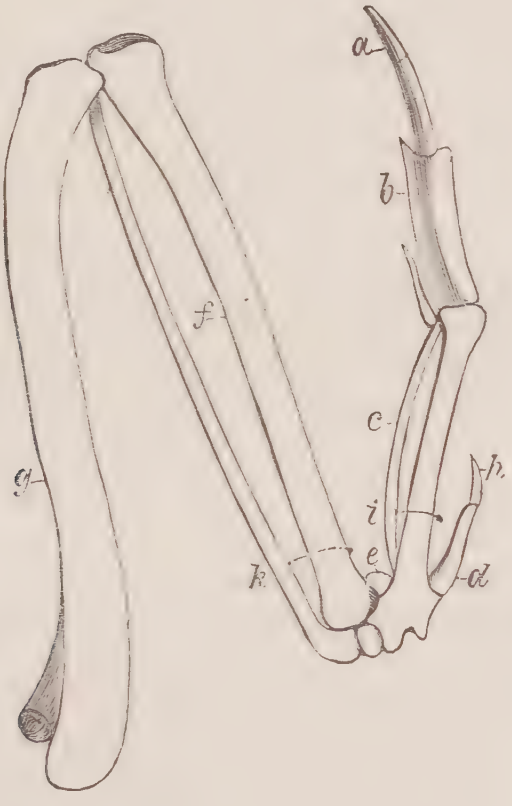
for migration. That a few instances occur of their having been found in old shafts of mines, and in similar situations, we will not dispute; though it is somewhat extraordinary that those who have stated such as facts, do not mention which species of swallow was so found; nor have we been able to find a single person of good authority who ever saw the fact. Why these birds should ever have been denied their migrative powers, we cannot conceive, when others, much less qualified for long flights, have not been doubted. That this bird, as well as the chimney swallow, is now and then seen flying about long after the general disappearance of these birds, we have more than once had ocular proof. But these instances must be attributed to some accident or individual defect, which prevented them from performing their usual autumnal flight. It is well known that in some animals, whose radical heat is sensibly affected by cold, the power of action is lost when the fluids become languid, and animal life is as it were suspended. The bat, the dormouse, and hedge-hog, become torpid in winter, when the mean state of the air is below 45°; and their heat sems to keep pace nearly with the state of the atmosphere. But even at this season, the general warmth of the sun regenerates their benumbed limbs, and the bat is sometimes seen flying about at mid-day, but returns again to its former state for weeks, and perhaps months, if the air proves colder.

Thus it is with the martin and swallow who have been accidentally detained in this northern climate; they are roused by a certain degree of heat, and the calls of hunger induce them to fly abroad for food; and it is much to be doubted, whether this sudden return of all the animal functions does not prove fatal, from not being able to find sufficient food to supply the natural excretions, which in a torpid state have been observed to be little or none. It cannot be supposed it was intended by nature, that birds, who have the power of shifting their quarters in so expeditious a manner, and with such ease, should ever repose during the colder season. It is therefore most reasonable to suppose such accidental migrative birds, who are detained in a climate unsuitable to their nature, perish before the return of the warmer months. We have known several instances of a single bird of this species, flying about in search of food after the middle of November, but never for two days together, nor after the latter end of that month. It is found in most parts of Europe, and in Asia.

WING.—* The wing of a bird consists of five principal joints, with small auxiliary ones as represented in the annexed figure, and by a comparison with the human arm, or the fore leg of a quadruped, we shall find there is considerable similarity. The joints *a b* and *c* answer to

the *phalanges* of the fingers; *d* corresponds with the *metacarpus*, having two small bones attached to it; at *e e*, for the *carpus*; *f* consists of two bones, similar to those of the fore-arm, the smaller is called the *ulna*, the larger the *radius*; *g* is the *os humerus*. From *a* and *b* of the *phalanges*, and from the *metacarpal* joint *c*, arise the greater or primary quill-feathers, usually consisting of ten or twelve. From the fore-arm *f* spring the lesser or secondary quills, which cover the primaries when the wing is closed, consisting of twelve or fourteen feathers, according to the length of the wing.

The *os humerus g*, bears what are called the tertials at the outer extremity, and at the other end is articulated into the *scapula*, and usually concealed by the scapular feathers; *h*, is the *alula spuria*, from whence those feathers arise which constitute the spurious wing; this part answers to the thumb in the human hand, and in the wild swan (*Cygnus ferus*) is furnished with a corneous claw, as represented at *h*.



Many ridiculous stories have been told of the great strength a swan possesses in his wings, and how dangerous it is to approach the nest of this bird, for a blow from its wing has been known to fracture a man's thigh. It is high time such absurdities should be erased in this philosophical age, and that the mind of man should reason before he con-

tinues to relate such accounts, only calculated to frighten children. Let the bones of the wing of a swan be examined, and compared with that of the thigh of a man, or even of his arm, (for it is well known the size and strength of muscles are in proportion to the size of the bone,) and it will be evident, that it would be as impossible for a swan to break a man's arm, as it would be to break his head with a reed. The bone of a man's arm would bear a weight or pressure fifty times as great as the bone of a swan's wing; how then is the inferior in size and strength to break the superior without at least being itself fractured?

The pectoral muscles of all birds are proportionably stronger than the same muscles in the human frame, weight for weight; but their bones, on account of their necessary levity, are thin, tabular, and consequently brittle, and ill calculated for partial concussion, though admirably suited for general and equal pressure against the yielding atmosphere. It should also be recollected, that a bird is incapable of striking with any degree of force while all his quill feathers are perfect, the resistance of the air against such a surface being too great to allow of its moving with sufficient velocity to inflict any sensible pain: to give the greatest impetus, the feathers should be cut short, as in the game cock trimmed for fighting, the power of whose wings is greatly augmented by such a reduction of surface.

When we have taken a swan by the wing, we felt no uneasiness for the safety of our own arms, but greatly alarmed for fear, lest in the struggle, we might break the wing of the swan; and we are quite convinced that the face alone need be guarded against the pinion of any such bird.

To those who may have a menagerie or a decoy, or wish to preserve the larger birds in confinement, it may be useful to know how to perform amputation upon that part of the wing of a bird, which will effectually prevent its escape, in as expeditious a manner, and with as little pain and risk as possible.

The usual method is that of cutting off a portion of the wing by a strong pair of scissors, or shears, and then, with a red-hot iron, searing the part, in order to stop the effusion of blood. The operation thus performed is tedious, painful, and not always attended with success; for as the principal artery contracts upon cutting the flesh, we have seen the part grilled for ten minutes with a red-hot poker, without closing the mouth of the artery, and the bird die in consequence of the loss of blood.

Supposing then, that only eight or nine of the greater quills are wanted to be taken off, which is sufficient for the duck tribe, the place for amputation is at *i*. For short-winged birds, such as the pheasant and partridge, the operation is best performed at *k*, for these birds can

rise a considerable way from the ground with the loss only of part of the primary quills.

In order to perform the operation at either of these places, the operator should be furnished with a long needle and coarse strong thread, which should be used double. Let the bird be held by an assistant, and having cut away the small feathers of the wing at the part intended to be amputated, pass the needle through between the two bones, as close as possible to the lesser bone, taking the inside of that bone for guiding the point of the needle. Return the needle on the opposite side of the great bone, a little within the skin, then bring the two ends together, and make a double turn in the first knot, to prevent slipping after tying, and draw the knot strongly, so as to form a ligature upon the vessels, and then tie a second knot. It will be obvious that by this ligature the larger bone, and the greater part of the flesh are enclosed, and as the main artery, or its principal branch, lies on the inside of that bone, amputation may then be performed with safety, and the ligature need never be removed. It now only requires to place the wing on a block of wood, and with a sharp knife and a hammer, to take the pinion off about the eighth of an inch below the ligature.

It will be readily perceived that a ligature tied round the two bones would not compress the main artery; besides, by enclosing only a part of the limb, the ligature is not only secure from slipping, but the stump more readily heals.

If the wing of a bird is fractured by a shot as high up as the joint *g*, the same operation may be performed with safety by passing the needle and thread a little within the skin, on each side the bone, just above the fractured part, and tying it as before described; then, with a sharp knife, cut the flesh round at the fracture, and if any splinter of the bone projects, it should be snipped off with a cutter, or a pair of scissors, as close as possible to the flesh. In all these cases, the bird may be set at liberty as soon as it is perceived that the ligature has been sufficiently tightened to prevent bleeding, and never requires any further care.

When the amputation is performed at *i* of joint *c*, the spurious wing (*Alula spuria*) should be suffered to remain, as it gives a finish to the wing, and hides the stump.*

WINNARD.—A name for the Redwing.

WIND THRUSH.—A name for the Redwing.

WINTER BONNET.—A name for the Gull.

WINTER DUCK.—A name for the Pintail Duck.

WINTER GULL.—A name for the Gull (*Larus Canus*) in the second year's plumage.

WINTER MEW.—A name for the Gull.

WINTER WAGTAIL (*Motacilla Boarula*, Linnæus.)

*Motacilla Boarula, *Linn.* Syst. p. 527.—*Gmel.* Syst. 1. p. 997. sp. 5.—*Lath.* Ind. Orn. 2. p. 502. 4.—Motacilla melanopa, *Gmel.* Syst. 997.—*Lath.* Ind. Orn. 2. 503. sp. 5.—Motacilla cinerea, an flava altera Aldrov.? *Raii*, Syn. p. 75. 3.—*Will.* p. 172.—La Bergeronette jaune, *Buff.* Ois. 5. p. 268.—*Ib.* pl. Enl. 28. f. 1. young female.—*Temm.* Man. d'Orn. 1. p. 257.—Motacilla sulphurea, *Bechst.* Naturg. Deut. 3. p. 459.—Yellow Wagtail, *Albin*, 2. t. 58.—Grey Wagtail, Br. Zool. 1. No. 144.—*Will.* (Angl.) p. 238.—*Lath.* Syn. 4. p. 398. 4.—*Ib.* Supp. p. 178.—*Mont.* Orn. Dict.—*Ib.* Supp.—*Lewin's* Br. Birds, 3. t. 95.—*Edw.* t. 259.—*Walc.* Syn. 2. t. 227.—*Pult.* Cat. Dorset. p. 8.—*Bewick's* Br. Birds, 1. p. t. 190.—*Flem.* Br. Anim. p. 747.—*Selby*, pl. 49. fig. 2. p. 209.*

This very elegant species weighs about five drams; length seven inches and three-quarters. Bill dusky; irides dark hazel; crown of the head, cheeks, back of the neck, back, and scapulars, dark cinereous; greenish yellow on the rump; the eye-lids, chin, throat, and breast, buff-coloured yellow; behind the eye a stroke of the same; belly pale yellow; the wing coverts and quills black, the former bordered with light brown, the latter slightly edged on the exterior webs of the primores, and the three next the body deeply margined on their outer webs with yellowish white; the inner webs of all, except the three or four largest, are white at the base; the vent, sides of the upper and the under tail coverts, bright yellow; the tail is four inches long, the feathers of which bend a little downwards; the outer feather is entirely white; the second white, except on the outer web, which is black to within half an inch of the end; the third like the last, with the addition of a small streak of black on the edge of the interior web; the fourth and fifth black; middle ones dusky, tinged with ash-colour, and edged with yellow towards the base; legs dusky brown.

This is the winter plumage. About the beginning of March some spots of black are seen on the throat and chin, which increases till those parts are wholly black, except the tips of the feathers, which are slightly edged with white.

All authors seem to agree in the mistake that the female does not possess the black mark on the throat, and that such is the distinguishing mark of the male sex; but observing that none had that mark till after the month of February, we were led to dissect several both before the black appeared, and afterwards, and found both sexes with and without that mark.

The Winter Wagtail visits the southern parts of this country about the latter end of September, and departs for the northern parts in April. At first not one is to be seen with the black throat, and in the month of March none are to be found without more or less black on that part; but in the female it is not so conspicuous. At this season the breast and belly of the male becomes of a bright yellow; the other sex is also brighter on

those parts than in the winter; and each has a white streak from the base of the bill passing down the neck on the edge of the black.

It is more than probable that this and the spring-wagtail have been sometimes confounded. In the British Zoology mention is made of that bird remaining all the year in Hampshire; probably taken from Mr. White's Natural History of Selborne, p. 38, who says, " wagtails, both white and yellow, remain with us all the winter." And in the Naturalist's Calendar, it says, p. 8, " grey and white wagtails appear January the 2nd;" again, p. 12, " yellow wagtails appear from January 25th to April 14th." It seems evident, therefore, this author did not discriminate the two species. In the Linnæan Transactions, i. p. 126, Mr. Markwick says, " The white, grey, and yellow wagtails are often seen in the middle of winter, although the generality of them disappear in autumn." From this account it should seem this bird was found in those parts during summer. We have, however, never had ocular proof that this bird remains with us in summer, and are inclined to believe the confusion of the species has given rise to the idea.

*" In the northern parts of the kingdom," says Selby, " it is a regular summer visitant, arriving in April, and retiring, with few exceptions, about the end of September, or the beginning of the following month. Previous to its departure, it assembles in small flocks or families, which haunt the meadows, or bare pastures; and, at this time, having acquired their winter's plumage, the young and adults closely resemble each other. It commences nidification very soon after its arrival, usually in the stony bank, or a shelf of the rocky precipice that so often borders our nothern rivers. The nest is made of moss and dry grasses, lined with hair; and the eggs, commonly six in number, are of a yellowish grey, blotched by a darker shade of the same colour. It produces two broods in the year; the first of which is in general fledged by the end of May." * It is a solitary species, frequenting watery places and clear and shallow streams, where it feeds upon various aquatic insects.

WITCH.—A name for the Petrel.

WITWALL.—A name for the Whitwall.

WOOD CHAT.—A name for the Wood Shrike.

WOODCOCK (*Scolopax rusticola*, Linnæus.)

Scolopax rusticola, *Gmel.* Syst. 2. 660.—*Lath.* Ind. Orn. 2. p. 713. 1.—*Temm.* Man. d'Orn. 2. p. 673.—*Flem.* Br. Anim. p. 105.—*Raii*, Syn. p. 104. A. 1.—*Briss.* 5. p. 292. 1.—La Becasse, *Buff.* Ois. 7. p. 462. 25.—Woodcock, Br. Zool. 2. No. 178. t. 65.—*Ib.* fol. 119.—Arct. Zool. 2. p. 470. A.—*Ib.* Supp. p. 68.—*Will.* (Angl.) p. 289. t. 53.—*Albin*, 1. t. 70.—*Borlas.* Cornw. p. 245. t. 24. f. 12.—*Lath.* Syn. 5. p. 129. 1.—*Lewin's* Br. Birds, 4. t. 156.—*Walc.* Syn. 2. t. 136.—*Pult.* Cat. Dorset. p. 14.—Rural Sports, 2. t. p. 434.—*Bewick's* Br. Birds, 2. t. p. 60.

This well-known species needs little description. The length is fifteen inches; weight from twelve to fifteen ounces. The bill is about three inches long, furrowed along the side of the upper mandible; forehead cinereous; the rest of the upper parts of the bird is a mixture of ferruginous, black, and grey, disposed in bars; the under parts are yellowish white, with dusky streaks; the tail consists of twelve feathers, black on the inner web, the outer bordered with rufous; tips above cinereous; beneath white. This bird is subject to great variety; some are very dark-coloured and small; others are large, and the plumage much more rufous. These have been thought two different sexes, but without foundation. By dissecting many, we found that the female is generally largest, and commonly partakes more of the ferruginous than the male.

The Woodcock appears first in the beginning of October, some few the latter end of September, but never in quantity till the middle of November. They generally come to us with northerly or easterly winds, when the more northern countries become frozen; and if the frost in those countries where they breed, is suddenly severe, large flights are sometimes met with on our coasts, where they remain for one day to recruit their strength, and then disperse. With us it is not nearly so plentiful as formerly; a great many, however, are yet to be found in the more uncultivated parts of Devonshire, Cornwall, and Wales, as well as in the north of Scotland; but no where so plentiful as in the large tracts of woods in Ireland. In severe weather they accumulate from the moors and inland counties to the woods in the west of England. It is amongst the few winter birds that occasionally breed with us, many instances of which are recorded. The young birds have been killed in August, and eggs taken in June, both of which we can speak of from our own knowledge. In the year 1795, we were favoured with two eggs from the Rev. Mr. Wheatear, of Hastings, who informed us they were found in a wood near Battle, in Sussex, and that there were four in the nest: in 1802, Mr. Foljambe had a specimen of a half-fledged bird, taken in Broadsworth-wood, near Doncaster; and in 1805, a brood of four were hatched in a wood at Shucoaks, near Worksop. The nest from which these were taken, consisted of moss, bent, and dry leaves. The eggs are generally four, larger than those of a pigeon, of a yellowish white, spotted and blotched with rufous brown and ash-colour, most so at the larger end. The food of this bird is insects and worms, for which it bores with its bill into moist places, feeding principally at night. They quit the woods in the dusk of the evening, and then only make a noise, something like the snipe, but not so shrill. At this time numbers were formerly caught in nets placed across the glade

of a wood, now much out of practice, except in the western counties. Sometimes a net is placed by the side of a hedge, near to a wood, where they are taken either morning or evening, as they fly from or to the woods.

*Woodcocks have for some centuries been in high estimation, and consequently, before the art of shooting flying had made much progress, they were sought for on the ground by the fowler, but by far the greater quantity were taken in nets and springes, both of which are still in partial use, but the former is the most destructive. The glade in a wood is the usual place selected, across which a net is suspended by pulleys fixed to opposite trees, and the person attending it is concealed, holding the cord in his hand. When a cock strikes against the net the shock is felt, and the cord instantly let go, by which means the net falls over, and entangles the bird. Sometimes the side of a high hedge, in certain situations, has been fatal to Woodcocks, by means of a net, suspended between a tree in the hedge, and a pole erected at the distance of twenty or thirty feet; for it is observable that these birds fly low, and under shelter, as much as possible, both going to and coming from their food in the evening and morning, just about dusk.

Springes, or springers, are usually set in moist places on the verge of woods, especially where the fowler perceives perforations made by the bill of the Woodcock, termed borings; or the mutings, called the splash. In such places a common ground springe is formed of an elastic stick, to which is fastened a horse-hair noose, which is put through a hole in a peg, fastened into the ground, to which a trigger is annexed; and in order to compel the Woodcock to walk into the trap, an extended fence is made on each side, by small sticks, set up close enough to prevent the bird passing between; these concentre at the trap, so that, in this funnel-shaped fence, the Woodcock, in feeding, is compelled to pass through the narrow passage, and is almost to a certainty caught by the legs.

The Woodcock is naturally a very shy and retired bird, rarely taking wing by day, unless disturbed; but just at the close of day, all, as if by common consent, quit the woods nearly at the same instant, and wander over the meadows in search of splashy places and moist ditches, for food, retiring to their hiding places again just at the dawn of day. Thus, when most other land birds are recruiting exhausted nature by sleep, these are rambling through the dark, directed, by an exquisite sense of smelling, to those places most likely to produce their natural sustenance; and by a still more exquisite sense of feeling in their long

bill, collecting their food. The eye is not called into use, for, like the mole, they actually feed beneath the surface; and by the sensibility of the instrument which is thrust into the soft earth, not a worm can escape that is within reach. The eyes of the Woodcock are large in proportion, and, like those of some other nocturnal birds, are the better calculated for collecting the faint rays of light in the darkened vales and sequestered woodlands, in their nocturnal excursions; thus enabling them to avoid trees and other obstacles, which continually occur. The nerves in the bill, as in that of the duck tribe, are numerous, and highly sensible of discrimination by the touch.

A Woodcock in our menagerie very soon discovered and drew forth every worm in the ground, which was dug up, to enable it to bore; and worms put into a large garden-pot, covered with earth five or six inches deep, are always cleared by the next morning, without one being left.

The enormous quantity of worms that these birds eat, is scarcely credible; indeed, it would be the constant labour of one person to procure such food for two or three Woodcocks. The difficulty of collecting a sufficiency of such precarious aliment, determined us to try if bread and milk would not be a good substitute; and we found that by putting clean washed worms into that mess, the bird soon acquired a taste for this new food, and will now eat a bason of bread and milk in twenty-four hours, besides the worms it can procure.

It is observable, that previous to the flirting or rising of a Woodcock from the ground, which, in the language of sportsmen, is termed *flushing*, the tail is thrown up in a perpendicular direction, and by spreading the feathers, the white tips all appear distinct.

Few naturalists at present will be found to doubt the actual migration and re-migration of birds; and that many repair annually to the same haunts and same nest, to breed. So many instances of this have been related upon good authority, that it scarcely requires strengthening by further proof; but a circumstance so well authenticated as that related by Mr. Bewick, on the authority of Sir John Trevelyan, Bart., is deserving of notice. "In the winter of 1797," says he, "the gamekeeper of E. M. Pleydell, Esq., of Watcombe, in Dorsetshire, brought him a Woodcock alive and unhurt, which he had caught in a net set for rabbits. Mr. Pleydell scratched the date upon a bit of thin brass, bent it round the Woodcock's leg, and let it fly. In December, the next year, Mr. Pleydell shot this bird, with the brass about its leg, in the same wood where it had been first caught."

The same author mentions, from the same authority, that a white woodcock was seen three successive winters in Penrice Wood, Glamorganshire.*

It is found in all parts of the old continent, from north to south, in some places remaining the whole year, only changing their situation in the breeding season from the plains to the mountains. We have been informed it visits some parts of America in the winter; but we suspect the Little Woodcock of that country has been confounded for it, as we have seen that species in plenty, during summer, about the temperate parts, which changes its situation with the season to the warmer provinces.

WOODCOCK OWL.—A name for the Hawk Owl.

WOOD-CRACKER.—A name for the Nuthatch.

WOOD GROUS.—A name for the Capercalzie.

WOOD-LARK (*Alauda arborea*, Ray.)

*Alauda arborea, *Linn.* Syst. Nat. 1. p. 287 .3.—*Gmel.* Syst. 2. p. 793.—*Lath.* Ind. Orn. 2. p. 492. sp. 3.—*Raii*, Syn. p. 69. A. 2.—*Will.* p. 149. t. 40.—*Briss.* 3. p. 340. t. 20. f. 1.—Alauda nemorosa, *Gmel.* Syst. 1. p. 797. sp. 21.—Alauda cristatella, *Lath.* Ind. Orn. 2. p. 499. sp. 36.—Le Lulu, l'Alouette des bois, ou le Cujelier, *Buff.* Ois. 5. p. 74. and 5. p. 25.—*Ib.* pl. Enl. 503.—Alouette Lulu, *Temm.* Man. d'Orn. 1. p. 282.—Baumlerche, *Bechst.* Naturg. Deut. 3. p. 781.—Waldlerche, *Meyer*, Tasschenb. Deut. 1. p. 262.—Wood-Lark, Br. Zool. No. 137.—Arct. Zool. 2. p. 395. B.—*Will.* (Angl.) p. 204.—*Lewin's* Br. Birds, 3. t. 90.—*Lath.* Syn. 4. p. 371. 3.—*Albin*, 1. t. 42.—*Pult.* Cat. Dorset. p. 8.—*Walc.* Syn. 2. t. 190.—*Mont.* Orn. Dict. 1.—*Bewick's* Br. Birds, 1. t. 183.—*Shaw's* Zool. 10. p. 506. t. 47.—*Flem.* Br. Anim. p. 79.—*Selby*, pl. 50. fig. 2. p. 224.*

This species weighs about eight drams; length six inches; bill dusky, whitish at the base of the under mandible; irides hazel. The general plumage much resembles that of the sky-lark; the feathers on the top of the head and the whole upper parts are dusky, margined with a light reddish brown; on the crown of the head the feathers are long, and capable of being erected in form of a short crest; from the bill over the eye is a narrow band of yellowish white surrounding the crown of the head; the coverts of the ears brown, beneath which is another light-coloured stroke; the neck and breast yellowish white, tinged with brown, marked with narrow dusky spots; belly dirty white; quill-feathers dusky, slightly edged with brown; the tail is short; the two middle feathers are brown, the next dusky, and the four outer ones on each side are black, tipped with dirty white; the tail coverts are brown, and reach within half an inch of the end of the tail; legs yellowish flesh-colour; hind claw long, and nearly straight.

The Wood-Lark is by no means a plentiful species, but is met with in most parts of the kingdom sparingly. It sings delightfully on wing describing its flight in widely-extended circles, and pouring out its song a whole hour without intermission; it rarely utters its song when sitting on the ground, though sometimes when perched on a tree. The

song is much more melodious than that of the sky-lark, but does not consist of so great a variety of notes; but then it sings almost throughout the year, except in the months of June and July. It does not mount in the air in a perpendicular manner, and continue hovering and singing in the same spot like the sky-lark, but will sometimes soar to a great height, and keep flying in large irregular circles, singing the whole time with little intermission; and will thus continue in the air for an hour together.

It is a very early breeder, beginning to build in March. We have even found the nest with eggs as early as the fourth of April. It is placed on the ground, most commonly in rough and barren land, under a tuft of high grass, furze, or some low bush; and is made of dry grass, lined with finer grass, and sometimes with a few long hairs. The eggs are generally four in number, brown, mottled with dusky and cinereous, mostly at the larger end; are somewhat less than those of the sky-lark; their weight from forty to fifty grains.

These birds rarely assemble in larger flocks than six or seven; most probably the family, which associate together till the returning spring. Their food is grain and seeds of various kinds, as well as insects.

WOOD OWL.—A name for the Tawny owl.

WOODPECKER (*Picus*, Linnæus.)—*A genus of climbers, (*Scansores*, Cuvier,) of which we have the Hickwall, the Poppinjay, the Whitwall, besides two stragglers.*

WOOD PIGEON.—A name for the Ring Dove.

WOOD SANDPIPER (*Totanus glareola*, Temminck.)

*Totanus Glareola, *Temm.* Man. d'Orn. 2. p. 654.—Tringa Glareola, *Linn.* Syst. 1. p. 250. 13. β.—Fauna Suec. No. 184.—*Gmel.* Syst. 1. p. 177.—*Lath.* Ind. Orn. 2. p. 130. No. 13.—*Retz.* Fauna Suec. 186. 155.—Wood Sandpiper, Arct. Zool. 2. p. 482. A.—*Lath.* Syn. 5. p. 172. 13.—*Flem.* Br. Anim. p. 103.*

This species is about the size of the jack snipe, but of a more slender form. Length, from the apex of the bill to the end of the tail, nine inches; to the end of the toes eleven inches and a half; weight two ounces and a quarter; bill not quite an inch and a quarter long, the base half dusky green, the other black, slender, a trifle bending downward at the point; upper mandible rather the longest, tapering to a blunt point, irides dusky; from the bill to the eye a dusky streak, above which, on each side, is white passing over the eye; the middle of the forehead and crown dusky black, streaked with dirty white, which gives it a cinereous hue, fore part lightest; breast, belly, sides, vent, and under tail coverts, spotless white; the feathers on the back dusky black, with a purplish gloss, marked with a dull yellowish spot on each side the webs near the tip; scapulars the same, with several spots on

the margins; the coverts and tertials of the wings the same, but without the purplish gloss, and the spots inclining more to white on the coverts; the smaller coverts on the ridge of the wing plain dusky black; primary and secondary quills, and first row of greater coverts immediately impending them, black, slightly tipped with white, except three or four of the first feathers; the shaft of the first quill is white; upper part of the rump black, with a few fine streaks of white; lower rump and upper tail coverts white, those next the tail spotted with black; the tail consists of twelve feathers, the middlemost rather the longest; these are barred with black and white alternately, a little oblique; on the outer webs are eight black bars, on the inner webs six; the next feather has six bars on the outer, and four on the inner web; the third has five, and three bars in the same manner; the fourth feather has five, and one; the fifth and outer feathers are only spotted on the margin of the outer web, with one spot on the inner web of the former; the latter is plain white on the interior web; the black bars on the middle feathers do not exactly correspond, those on the inner webs rise higher at the shaft, and often run into the superior bar on the outer web; the legs are of an olive-green, long and slender, measuring three inches from the knee to the end of the middle toe, and bare of feathers one inch above the knee; the outer toe connected by a membrane as far as the first joint.

There is little doubt but this is the *Tringa Glareola* of Linnæus. It cannot be confounded with the *Tringa Ochropus*, or green sandpiper, by those who have had an opportunity of comparing them. It differs materially from that bird by the superior length of the legs; the plumage too is very different when compared; nor has it any of those singular white marks under the wings, as in the green sandpiper, representing the letter V. The tail also in that bird is nearly even at the tip, and is only partly barred; whereas this is barred quite to the base, is rather cuneiform, and the feathers more pointed than in that bird.

In the specimen now before us, shot on the coast of south Devon, early in the month of August, the outer feather of the tail on each side is longer than the two succeeding ones, and equal in length to the fourth, from which they gradually increase in length to the middle ones, which exceed the outer by a quarter of an inch. Whether this singular form of the tail is to be depended on as permanent, future experience must determine, as at this season, when birds are moulting, such a circumstance cannot be fully relied on, it being well known that birds always lose the corresponding feathers of the tail and wings nearly at the same time.

Mr. Marwick, in the first volume of the Linnæan Transactions, has given a figure of the green sandpiper, (*Tringa Ochropus*, LINNÆUS,) which he considered as the *Glareola*, or Wood Sandpiper. That gentleman, however, in the second volume of the same work, acknowledges the possibility of the bird being the green sandpiper, but suspects the Wood Sandpiper to be only a variety of that bird. This bird, however, is perfectly distinct from that or any other species that has come within our knowledge, should it not prove to be the *Glareola*.

The few authors who have described this species are silent with respect to the length of its legs, which in the bird here described are singularly long in proportion to the body, and by far superior in length to any species of sandpiper, of equal size, with which we are acquainted. This circumstance, however, may have been overlooked in a skin, or ill-preserved specimen. In the markings, our bird seems to correspond with the description of those few authors who have described the *Glareola*, except that they all make the back to be brown; but as we are aware of the difficulty of conveying the idea of colour by description, and the near approach of some kinds of brown to dusky, allowance may be made, the sex and seasons of the year in which the bird is killed, being also taken into consideration. The one in our possession was a male. This species is said to inhabit the moist woods of Sweden.

WOOD SHRIKE (*Lanius rufus*, BRISSON.)

* Lanius Rutilus, *Lath.* Ind. Orn. 1. p. 70. sp. 12.—Lanius Pomeronus, Mus. Carts. fasc. 1. t. 1. *Gmel.* Syst. 1. p. 302. sp. 33.—Lanius Collurio Rufus, *Ib.* p. 301. sp. 12.—Lanius minor cinerascens, *Raii*, Syn. p. 19. A. 6.—*Will.* p. 54. 4. t. 10. f. 2 ?—Lanius femina, *Ib.* p. 54. III.—Lanius rufus, *Briss.* 2. p. 147. 3.—*Ib.* 8vo. 1. p. 199.—Lanius rutilus, *Lath.* Ind. Orn. 1. p. 76. 12.—Pie-griesche rousse, *Buff.* Ois. 1. p. 301.—*Temm.* Man. d'Orn. 1. p. 146. *Le Vail.* Ois. d'Afr. 2. pl. 63.—Another sort of Butcher-bird, *Will.* (Angl.) p. 89. 4.—Rothköpfiger Vurger, *Bechst.* Tasschenb. Deut. p. 101.—*Meyer*, Tasschenb. Deut. p. 89.—*—Frisch*, t. 61.—Wood-chat, Br. Zool. 1. No. 73.—*Ib.* fol. 74. t. C. 1.—*Albin*, 2. t. 16.—*Lewin's* Br. Birds, 1. t. 32.—*Lath.* Syn. p. 169. 17.—*Walc.* Br. Birds, 1. t. 31.—*Pult.* Cat. Dorset. p. 4.—*Don.* Br. Birds, 4. t. 84.—Wood-Shrike, *Flem.* Br. Anim. p. 63.

This species is said to be about the size of the flusher, and from the days of Willughby has been enumerated as a British bird, although no author, with the exception of Montagu, has detected a native example.*

The bill is horn-colour; the feathers round the base whitish; head and hind part of the neck bright bay; from the base of the bill over the forehead, and through the eyes passing downwards on each side the neck, is a streak of black; back dusky; upper tail coverts grey; wing coverts dusky; quills black, near the bottom of which a white spot; throat, breast, and belly, yellowish white; the tail is black, the margins and tips whitish, except the two middle ones; legs black.

Latham says the scapulars are white. The female is reddish on the upper parts of the body, the under parts dirty white; every where transversely striated with brown.

The above is nearly the description of Mr. Pennant and Dr. Latham, and which appears to be borrowed from earlier authors, as neither of them seems to have seen the bird. By the last mentioned author two varieties are given; one with the upper parts of the body rufous, under parts white; wings wholly brown, with a small spot of white at the base of the quills; the other differs only in having the head black, and the tail rather longer.

We had formerly some doubts whether this might not hereafter prove to be only a variety of the flusher, or the young male in some of the intermediate stages between the nestling and adult plumage, which with us rarely, if ever, appear, as those birds leave us in autumn before they are maturely feathered. From a minute examination of a recent specimen, however, we can no longer doubt, that the Wood Shrike is perfectly distinct from that species. In the make of the two birds, the cuneiform shape of the tail, form of the bill, and size, there is great similitude, at the same time there are characters which must form a specific distinction. When critically examined, it is observable that the markings are different in form as well as colour, but the dusky colour of the upper parts of the body, the black legs, and above all the white scapulars, cannot in any stage or variety, belong to the flusher; and it is very improbable that the bay head should be given in a state of adolscence, to be discharged again in maturity.

It must be well known to those who have penetrated deeply into the mysteries of nature, that there are certain colours that, under certain circumstances, denote maturity; that pure white, full black, and the more gaudy tints, are usually marks of maturity. Thus we cannot suppose that at any age or season the flusher would become black on the back with white scapulars, or possess a bay crown or black legs, except by accident, a mere *lusus naturæ;* and that cannot now be suspected. Besides, if we attend to the plumage of the flusher, which constantly breeds with us in considerable numbers, we find that all the young, when they leave us in the month of September, very much resemble the adult female; and the whole return to us again in about six months, in their full sexual plumage; a proof that the young arrive at maturity the first year, and propagate the ensuing spring. With this certainty, it would be most inconsistent with all the known laws of nature to suppose that the young flusher changed its plumage to that of the Wood Shrike, and again to that of the adult flusher, in the course of the few

months they are absent in a more southern climate. It is well known, that all young birds, without exception, at first mostly resemble the parent female, and, by degrees, those of the male sex become more masculine in plumage; but the intermediate state partakes more or less of both; and in no instance is so totally unlike either as the bird in question. If, on the other hand, the old birds of the red-backed species were capable of such a change, that which characterizes the Wood Shrike, would undoubtedly be their courting garment; those colours which we noticed before as marks of maturity, would have been assumed when the exhilarating passion of love and soft desire fired their little breasts; it is then and then alone, that every feather has its gaudiest tint. With all these reflections, founded on the known laws of nature, evinced by daily experience, we can have no more doubt of the identity of these two shrikes as distinct species, than we have that they are different from the butcher bird; for there is not a greater difference between them, than between the flusher and the Wood Shrike.

This species is found in most parts of the European Continent, but is rare in Holland; and was found by Le Vaillant to be numerous in Africa. Gmelin has given this as a mere variety of the flusher.

WOOD SPITE.—A name for the Poppinjay.

WOOD WREN (*Sylvia sibilatrix*, Bechstein.)

*Sylvia sibilatrix, *Bechst.* Naturg. Deut. 3. p. 561.—*Ib.* Tasschenb. Deut. p. 176.—Sylvia sylvicola, *Lath.* Ind. Orn. Supp. 2. p. 53. sp. 1.—Linn. Trans. 4. p. 35.—Curruca sibilatrix, *Flem.* Br. Anim. p. 70.—Regulus non Cristatus major, *Will.* p. 164.—*Ib.* (Angl.) p. 228.—Bec-fin siffleur, *Temm.* Man. d'Orn. 1. p. 223.—Grüner Sanger, *Meyer*, Tasschenb. Deut. 1. p. 247.—Wood Wren, Linn. Trans. 2. p. 245. t. 24.—*Lath.* Syn. 2. p. 237.—*Mont.* Orn. Dict.—*Ib.* Supp.—*Sweet's* Br. Warbler, p. 10.—Green Wren, *Albin*, 2. t. 86. 6.—Larger Willow-Wren, *White's* Hist. Selb. p. 55.—Yellow Willow-Wren, *Bewick's* Br. Birds, 1. p. 229.—*Selby*, pl. 47. fig. 2. p. 188.

This bird remained long unnoticed as a distinct species, from its resemblance to the hay-bird, (*Sylvia trochilus*,) with which it is still frequently confounded.* It measures in length five inches and a half; bill horn-colour; upper mandible bent at the tip, and rather longer than the under; irides hazel; nostrils beset with bristles; top of the head, neck, back, and tail-coverts olive green; throat and cheeks yellow, paler on the breast; belly and vent of a most beautiful silvery white; through the eye passes a yellow line; wings and coverts brown, edged with green; tail consisting of twelve feathers, rather forked, and of a brown colour, edged with green on the exterior webs, and with white on the interior, the first feather wanting the green edge; under part of the shoulder bright yellow; legs rather more than an inch long, of a horn-colour; claws paler.

The female is rather larger, weighing about three drams; the plumage exactly like the male.

"I have never," says Sweet, "observed it in any other situation than amongst tall trees, in woods or plantations, where it is readily detected on its arrival, by its shrill shaking sort of note, which may be heard at a great distance, and cannot be confounded with the song of any other bird. When it first arrives, it continues to sing nearly all day long, and its song is continued more or less through most part of the summer, except the time that it is engaged in feeding its young; it is then discovered by a dull mournful sort of call, quite different from that of any other bird. It may be easily watched to its nest, which is built on the ground, in a thicket of small bushes, and consists of moss and dried leaves, with a covering at the top of the same materials, so that it is scarcely possible to discover it, without watching the old birds to it, either when they are building, or carrying food to their young. I believe they are to be found in most woods and large plantations in summer. I have frequently heard them in Kensington Gardens amongst the tall trees, and have known it as long as I have known any thing about birds; it being plentiful in the woods of R. Bright, Esq., of Karmgreen, near Bristol; where it was known when I was a boy, by the name of the shaking bird of the wood, from its singular note, which sounds as if it was shaking as it utters it, and which it really is, as may be readily seen by any person who will take the trouble to notice it."

The Wood Wren is a migrative species, appearing with us first about the latter end of April, the females ten days or a fortnight later, and departing again in September. The reason this bird has been so little noticed as a distinct species, is its great similitude to the hay-bird, with which it has been confounded, and probably likewise with the chiff-chaff. But its superior size to the latter, and the pure whiteness of the under tail coverts, are characteristic marks of distinction; which part in both the others is tinged with yellow; the colour of the upper parts is also much more vivid, and the stroke above the eye brighter yellow.. It differs also from those birds in manners and habits: this is found to inhabit the woods only in the breeding season. The nest is placed on the ground, in form like that of both the other birds, being oval, with a small hole near the top, constructed of dry grass, a few dead leaves, and a little moss; and invariably lined with finer grass and a few long hairs. The other species always line their nests with feathers. *Mr. Sweet (a high authority on such a subject) informs me, that he has often found the nest on the trunk of a tree.* The eggs are six in number, white, sprinkled all over with purplish spots. In some these markings

are confluent, inclining to rust-colour; their weight from eighteen to twenty-two grains.

This is not an uncommon species, having met with it in most parts of the south of England and Wales, and as far westward as Cornwall. It seems partial to oak and beech woods, where it may be found by its singular note, which seems to express the word *twee*, drawn out to some length, and repeated five or six times successively, terminating with the same notes delivered in a hurried manner, at which time it shakes its wings. This seems to be the extent of its song, the latter part of which is chiefly left out after the breeding season. It is also found in Germany, where it is likewise a migrative bird. Bechstein describes it in the twenty-seventh volume of Naturforscher, under the title of Der Laubrogelchen, (little leaf-bird.) In the Leverian Museum, case No. 271, we observed it inscribed green wren. Vieillot seems to think that he was the first who distinguished between this and the hay bird, and proposes to call it *Motacilla trochiloides;* but if he had taken the trouble to look into Aldrovand or Willughby, he would have found himself anticipated.[1]

WREN (*Anorthura communis*, RENNIE.)

*Troglodytes Europæus, *Cuv.* Reg. Anim.—Troglodytes vulgaris, *Flem.* Br. Anim. p. 73.—Sylvia Troglodytes, *Lath.* Ind. Orn. 2. p. 547. sp. 148.—Motacilla Troglodytes, *Linn.* Syst. 1. p. 337. 46.—*Gmel.* Syst. 1. p. 993. sp. 46.—*Raii*, Syn. p. 80. A. 11.—*Will.* p. 164. t. 42. Regulus, *Briss.* 3. p. 425. 24.—Le Troglodyte, *Buff.* Ois. 5. p. 352. t. 16. f. 1.—*Ib.* pl. Enl. p. 631. f. 2.—Troglodyte ordinaire, *Temm.* Man. d'Orn. 1. p. 233.—Zaun-Sanger, *Meyer*, Tasschenb. Deut. 1. p. 215. A.—Wren, Br. Zool. 1. No. 154.—Arct. Zool. 2. No. 322.—*Will.* (Angl.) p. 229. t. 42.—*Lath.* Syn. 4. p 506. 143.—*Lewin's* Br. Birds, 3. t. 111.—*Mont.* Orn. Dict.—*Walc.* Syn. 2. . t. 242.—*Pult.* Cat. Dorset. p. —*Bewick's* Br. Birds, 2. p. 227.—*Flem.* Br. Anim. p. 73.—*Selby*, pl. 47. fig. 5.

Provincial.—Vraun, or Ran. Cutty, Katy, or Kitty Wren. Kitty.

The name of *Troglodyta*, applied to the Wren by the older naturalists, and still continued by modern systematists, is derived from an ancient race of people inhabiting Ethiopia, who dug hollow caves for their habitations; but though the term might apply well to the kingfisher, the bank swallow, or other mining birds, it is but little appropriate to the Wren, which neither digs nor inhabits caverns, and might as well be applied, as it is in Ainsworth's Dictionary, to the hedge-sparrow! It is indeed very usual for the Wren to build under the brow of a river's bank, where the turf overhangs from being undermined by the stream; but the bird seems equally partial to the shelter afforded by ivy on trees or walls, though it will often build under the fork of a

[1] Oiseaux Dorés, i. p. 3. Note.

bare overhanging bough, and I have now before me one built in the small upper spray of a hawthorn, though it will be found, perhaps, more commonly still, sheltered under the projecting side of a haystack, or the overhanging thatch of a cottage eave.*

This species weighs about two drams and three-quarters; length near four inches and a quarter. The bill is slender, full half an inch in length, a little curved, and of a dusky brown-colour; irides dark hazel; the head, neck, and upper parts of the body, are of a deep reddish brown, obscurely marked with transverse dusky lines; over the eye a light-coloured streak; quills and tail dusky brown; the former spotted on the outer webs with light brown, the latter crossed with dusky black lines; the under parts light rufous brown; the sides and thighs crossed with darker lines; under tail coverts obscurely spotted with black and white; legs pale brown.

The food of this species is insects, which it finds in sufficient abundance to support life, even in the severest winters.

In the instance of the red-breast, the hedge-sparrow, (*Accentor modularis*, Bechstein), and the Wren, one can scarcely imagine how any of the species survive the winter, were it no more than the difficulty of procuring food. Selby, indeed, has observed Wrens to perish in severe winters, particularly when accompanied with great falls of snow. "Under these circumstances," he says, "they retire for shelter into holes of walls, and to the eaves of corn and haystacks; and I have frequently found the bodies of several together in old nests, which they had entered for additional warmth and protection during severe storms."[1]

*My friend, Allan Cunningham, Esq., tells me that he once found several Wrens in the hole of a wall, rolled up into a sort of ball, for the purpose, no doubt, of keeping one another warm during the night; and though such circumstances are only observed by accident, I think it very likely to be nothing uncommon among such small birds as have little power of generating, or retaining heat in cold weather. This very circumstance, indeed, was observed by the older naturalists. Speaking of Wrens, the learned author of the *Physicæ Curiosæ* says, they crowd into a cave during winter, to increase their heat by companionship:—"*Multi uno specu in hyeme conduntur, ut parvus in tam minutis corporibus* calor societate augeatur."[2] The value of this author's testimony, however, may be estimated by his adding, that when Wrens are put upon a spit to roast, it turns of its own accord,—

[1] Illustrations of Brit. Ornith. i. 197. [2] Phys. Curiosæ, p. 1249.

a fact which he professes to have himself witnessed, in company with the celebrated Kircher, at Rome, they being commanded to try the experiment by a certain eminent Cardinal, who furnished the bird, and a hazel rod for a spit. At first they despaired of success; but just as Kircher, who had lost all patience, was going away, the spit (*mirabile dictu*) began to turn slowly!!![1] Those who keep Wrens in cages usually furnish them with a box lined and covered with cloth, having a hole for entrance, where they may roost warmly during the night.[2] Yet even in keen frost the Wren does not seem in the day time to care much for cold, since I have in such cases frequently heard it singing as merrily as if it had been enjoying the sunshine of summer, contrary to the remark of White, that Wrens do not sing in frosty weather.[3]*

This pretty little bird, like the redbreast, frequently approaches the habitation of man, and enlivens the rustic garden with its song the greater part of the year. It begins to make a nest early in the spring, but frequently deserts it before it is lined, and searches for a more secure place. It is frequently made under the thatch of out-buildings, against the side of a mossy tree, or against an impending bank that secures it from the rain; sometimes in a low thick bush. But what is remarkable, the materials of the nest are generally adapted to the place; if built beside a hayrick, it is composed of hay; if against the side of a tree covered with white moss, it is made of that material; and with green moss if against a tree covered with the same, or in a bank. Thus instinct directs it for security. The lining is invariably feathers. The eggs are seven or eight in number, white, sparingly marked with small reddish spots, most commonly at the larger end; their weight about twenty grains.

* The Wren does not begin at the bottom of its nest first, which is usual with most birds, but, if against a tree, first traces the outline of the nest which is of an oval shape, and by that means fastens it equally strong to all parts, and afterwards encloses the sides and top, leaving only a small hole near the top for entrance. If the nest is placed under a bank, the top is first begun, and well secured in some small cavity, by which the fabric is suspended.

The usual staple material of the nest is green moss, (*Hypnum velutinum, &c.*) which it collects in great quantity, and apparently to save itself the trouble of frequent journeys for materials, it carries, as in the instance to be mentioned, a tuft of moss nearly as bulky as itself. I have

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[1] Phys. Curiosæ, p. 1249. [2] Syme, Brit. Song Birds, p. 159.
[3] Selborne, Lett. 60.

picked out several such tufts from the nest in the hawthorn spray just mentioned, which are evidently not felted or cemented together by saliva, but as they have naturally grown on the tree. I have often seen a house sparrow flying with a piece of packthread or bass more than a yard long, and consequently about six times its own length; but it is a much more curious sight to see a Wren carrying a piece of moss almost as large as its own body. When the Wren attaches its nest to the bare clay under an overhanging piece of turf, as well as when it selects the moss-grown trunk of a tree, it first sketches an oval outline of the structure by glueing, with saliva, bits of moss all round, in this manner; so as to be narrower at top than at bottom. Sometimes, instead of attaching the back of the nest to the clay, it fixes only the arch of the top to it, the under part of the nest being built downwards, and suspended therefrom. This foundation of moss is increased by inserting fresh pieces, apparently glued with saliva, as the foundation is glued to the clay, till a large hemisphere is constructed about twenty times the bulk of the little architects, with a small oval hole in the side for an entrance. Sometimes moss is almost the only material used in the whole structure, a smooth bed of the finer sort being used for a lining; but most commonly there are a few straws, sticks, or dead leaves on the outside, by way of binding to the moss, while the interior is lined with hair, wool, shavings of wood, cotton, worsted, feathers, down, and similar materials, according as they can be had, or rather according to the experience of the birds and their different notions of comfort; for we have found the nests thus varying even in the same locality. Sepp's figure of this nest is by no means good.[1] It is not a little remarkable that the same bird, though so partial to moss as a building material, in other instances scarcely uses any. I have now two of these nests before me of this sort; one, which was built in a haystack, is chiefly composed of withered grass of the softer kinds, (*Holcus lanatus, &c.*) some of the finer twigs of birch bent into a circular form, the convex part being downwards, and the concavity encompassing the oval entrance of the nest. There are in this a few bits of moss on the back of the structure, as well as in the interior. Another, built in an adjoining haystack, was chiefly of moss, which shews that the locality does not always influence the choice of materials. A second nest which I possess has no woody twigs, and scarcely any moss in the walls, which are composed of straw and dried grass, (*Lolium, Agrestis, Poa, &c.*) several with the seed panicles; while within, it is lined with dog's hair, and

[1] Nederlandsche Vögelen, ii. Deel.

apparently the scrapings from the barrels of writing quills, procured, no doubt, from the sweepings of a neighbouring school-room. There is a similar specimen in the British Museum.

The statement of Colonel Montagu, copied by Atkinson, that the Wren's nest is "invariably lined with feathers," is no less incorrect than their maintaining it to be always adapted to the selected locality, which is contrary to the facts just stated; since I have seen a nest of moss in a haystack, and others, of the same material, under the thatch of cottages and barns, which agrees also with the observations of Mr. Jennings. An anonymous correspondent of Mr. Loudon's, says, "many Wrens' nests may be found which have no feathers; but did you ever find either eggs or young ones in them? As far as my observation goes, the fact is, that the nest in which the Wren lays its eggs is profusely lined with feathers; but, during the period of incubation, the male, apparently from a desire to be doing something, constructs as many as half-a-dozen nests, in the vicinity of the first, none of which are lined; and, whilst the first nest is so artfully concealed as to be seldom found, the latter are very frequently seen. The Wren does not appear to be very careful in the selection of a site for the *cock-nests*, as they are called by the schoolboys in Yorkshire. I have frequently seen them in the twigs of a thick thorn hedge, under banks, in haystacks, in ivy-bushes, in old stumps, in the loopholes of buildings; and, in one instance, in an old bonnet placed among some peas to frighten away the blackcaps."[1] There can be no doubt, I apprehend, of these supposed cock-nests being nothing more than the unfinished structures of paired birds; otherwise the story would require the support of very strong evidence to render it credible.[2] That there are, in some instances, a few feathers lining the nest, I have just had proof, in two specimens brought me, one with seven eggs, and the other with six young ones. Both of these had about half-a-dozen small feathers interwoven into the lining, with hair.

I have just been watching the proceedings of a pair of Wrens, who had made choice of a rather singular spot for their nest—an exposed corner of a hedge-bank, which the jutting out of an elm-root had prevented the labourer's spade from beating down to the level of the sloping turf around it; and the only apparent inducement they could have had for constructing their "procreant cradle" here, was a tapestry of green moss, with which the root was covered, for otherwise it offered

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[1] Mag. of Nat. Hist. iii. p. 568.

[2] Architecture of Birds, Chapter on Dome Builders, p. 311.

no "coigne of vantage," either as a shelter from the weather, or as concealment or protection from enemies. On the contrary, it faced the public pathway, to which it was so near, that it had no little chance of being demolished by the first passing lounger who should dangle his walking-stick or his umbrella hither and thither, for want of other amusement, to keep time with the monotonous pendulum-swing of his cogitations.

If it was the vicinity, however, of the bed of green moss that had first attracted the Wrens to this elm-root, calculating on an abundant supply from it of building materials, they had afterwards found it too firmly matted into the bark to be procured, or otherwise unsuitable for their purpose, as they used very little of it in the structure, but carried what they wanted from some distance. It might be, indeed, that the passengers on the footway so frequently scared them, that they chose rather to look for a bit of moss where they could pick and choose undisturbed in the next field; and it was not a little painful to see the tiny creatures hopping from branch to branch of the hedge, carrying a bundle of stuff half as bulky as themselves,—anxiously waiting for some slow-walking passenger to move away from their vicinity, before they ventured to work. For though the Wren is far from being a timid bird, as it will allow one to come almost within arm's length of it, while it is hopping about in pursuit of flies; it is no less wary than other birds respecting its nest, and will scold most outrageously—calling "cheek! check!" of course meaning thereby, *stop! stop!* when any one intrudes within its boundaries, and will even pursue a boy or a polecat to some distance, with loud manifestations of anger—"tantæne animis *exiguis* iræ.

As I was eager to see the little architects at work on their nest, and had stationed myself so as to be within view without disturbing them, I was tantalised to perceive that more than two-thirds of their time was spent in scolding the chance passengers, who had no thoughts of intrusion, and cared nothing about the Wrens, nor the little moss-dome they were building for their family dwelling. One part of the wall I observed them very careful in rendering smooth and firm; it was that portion immediately under the entrance, which, as most people have seen a Wren's nest, it is scarcely necessary to remind the reader is an oval or roundish hole, in the side of the edifice immediately under the dome. Now, it being obvious, that this part of the wall has to support, not only the weight of the old birds when at home, and of the numerous family of young ones when hatched, but the wear and tear of passing in and out, it must require to be more firmly constructed than

the dome and the back wall, which are not in the same circumstances. In the nest in question, the requisite strength was given to this part by cross bars of birch twigs, tough slender roots, and bits of straw, all of which were worked into the moss in such a manner as to have their ends raised, while the middle was curved downwards in a manner by no means inelegant, the whole forming a sort of basket-work, in front of the main wall. Some of these twigs and straws were as long or longer than the little creatures who were seen carrying them from the hedge, sometimes at the risk of being tumbled head over heels by the weight; and it required all their skill to bring them into the proper position in the wall of the nest. I have frequently seen the leaf-cutter bee in similar difficulty, when carrying a heavy piece of rose-leaf, which sometimes she is even compelled to drop, and cannot again recover, for she has to carry it edge-wise between her legs, as she clips it off from the the leaf; and when its weight compels her to let it drop, it falls on its flat surface. The Wrens, on the other hand, never abandon a twig, but if it fall into the hedge, pounce after with as much eagerness as if there was not another to be found.*

WRYNECK (*Yunx torquilla*, Linnæus.)

* Yunx torquilla, *Linn.* Syst. 1. p. 172.—*Lath.* Ind. Orn. 1. p. 233.—*Gmel.* Syst. 1. p. 423.—*Raii*, Syn. p. 44. A. 8.—*Will.* p. 95. t. 22.—*Briss.* 4. p. 4. t. f. 1.—*Flem.* Br. Anim. p. 92.—Le Torcol, *Buff.* Ois. 7. p. 84. t. 3.—*Ib.* pl. Enl. 698. Torcol ordinaire, *Temm.* Man. d'Orn. 1. p. 403.—Die Wendehals, *Bechst.* Naturg. Deut. 2. p. 1048.—*Meyer*, Tasschenb. Deut. 1. p. 127.—*Ib.* Vög. Deut. 1. t. Heft. 9.—Wryneck, Br. Zool. 1. No. 83.—Arct. Zool. 2. p. 267. B.—*Will.* (Angl.) p. 138. t. 22.—*Lewin's* Br. Birds, 2. t. 43.—*Lath.* Syn. 2. p. 548. t. 24.——*Ib.* Supp. p. 103.—*Mont.* Orn. Dict.—*Ib.* Supp.—*Walc.* Syn. 1. t. 44.—*Pult.* Cat. Dorset. p. 6.—*Don.* Br. Birds, 4. t. 83.—*Bewick's* Br. Birds, 1. t. 111.—*Shaw's* Zool. 9. p. 143.—*Selby*, pl. 38. fig. 4. p. 110.

Provincial.—Long Tongue. Emmet Hunter. Snake Bird. Cuckoo's Mate.*

The Wryneck seems to be the link between the woodpecker and the cuckoo; it has the tongue and feet of the former, but not the strong angular bill or stiff tail; it has also the feet, and somewhat the bill of the latter; as well as the same number of flexible feathers in the tail. The weight of this beautiful bird is about ten drams; the length seven inches. The bill is three quarters of an inch long, nearly straight, and sharp-pointed; tongue cylindrical, two inches and a quarter in length; irides light hazel, inclining to yellow; the upper part of the head and neck, back, rump, and upper tail coverts, are ash-colour, marked with numerous fine, dusky, transverse, undulated lines; from the crown of the head a black list runs half way down the back, disposed in four indistinct lines; the wing coverts like the back, but inclining to rufous, and spotted with grey; the greater quills dusky, marked on their exte-

rior webs with quadrangular rust-coloured spots; the chin and fore part of the neck, yellowish white, crossed with dusky lines; lower part of the breast, belly, and sides, white, with small triangular dusky spots; under tail coverts rufous white, crossed with dusky lines; the tail feathers are broad, and rounded at their ends, and of the same colour as the back, with four distinct black bars; legs brown.

The pen or the pencil can only give a very inadequate idea of the elegant markings of this bird. Its name seems to have been given it from the singular manner of turning its head over its shoulder alternately, at which time the black list on the back of the neck, gives it a twisted appearance; it also erects all the feathers on the crown of the head in a terrific manner. It has been called the emmet hunter with great propriety, that insect being its chief food. The bill of this bird seems to be of little use in procuring subsistence, the tongue being the chief instrument used for such purposes. * The bill is used, on the contrary, for digging or enlarging a hole to nestle in: with this design, it pulls down a mass of chips and dust of rotten wood from the sides of the hole of some tree, which it selects to breed in.*

We were enabled to examine the manners of this bird minutely by taking a female from her nest, and confining her in a cage for some days. A quantity of mould, with emmets and their eggs, were given it; and it was curious to observe the tongue darted forward and retracted with such velocity, and with such unerring aim, that it never returned without an ant or an egg adhering to it; not transfixed by the horny point, as some have imagined, but retained by a peculiar tenacious moisture, by nature provided for that purpose. While it is feeding, the body is motionless, the head only is turned to every side, and the motion of the tongue is so rapid, that an ant's egg, which is of a light colour, and more conspicuous than the tongue, has somewhat the appearance of moving towards the mouth by attraction, as a needle flies to a magnet. The bill is rarely used except to remove the mould, in order to get more readily at these insects; where the earth is hollow, the tongue is thrust into all the cavities to rouse the ants; for this purpose the horny appendage is extremely serviceable, as a guide to the tongue. We have seen the poppinjay take its food in a similar manner; and most probably every species of that genus does the same.

The Wryneck makes a noise very much like the smaller species of hawks, which it frequently repeats in the spring, soon after its arrival, which is generally about the middle of April, sometimes earlier in that month. Appearing at the same time with the cuckoo, it has been termed that bird's messenger or attendant. If this bird is surprised in its

nest, it has a singular action of defence: stretching itself at full length, and erecting the feathers on the head, it suddenly rises, making at the same time a short hissing noise, something like that of a cock turkey. This was frequently done in the cage when it was approached. *Mr. Knapp thus happily describes the habits of this bird:—"Shy and unusually timid," says he, "as if all its life were spent in the deepest retirement away from man, it remains through the day on some ditch-bank, or basks with seeming enjoyment, in any sunny hour, on the ant-hills nearest to its retreat; and these it depopulates for food, by means of its long glutinous tongue, which, with the insects, collects much of the soil of the heaps, as we find a much larger portion of grit in its stomach than is usually met with in that of other birds. When disturbed, it escapes by a flight precipitate and awkward, hides itself from our sight, and, were not its haunts and habits known, we should never conjecture that this bustling fugitive was our long-forgotten spring visitant, the Wryneck. The winter or spring of 1818 was, from some unknown cause, singularly unfavourable for this bird. It generally arrives before the middle of April; and its vernal note, so unlike that of any of its companions, announces its presence throughout all the mild mornings of this month, and part of the following; but during the spring of that year it was perfectly silent, or absent from us. The season, it is true, was unusually cheerless and ungenial."*

It is not uncommon in the southern and eastern parts of the kingdom; but is more scarce westward, and is rarely if ever found in Cornwall. It chiefly inhabits woods, orchards, or thickly-enclosed countries, where trees abound. It is seldom observed to climb trees, although the feet seem calculated for that purpose. It is said sometimes to make a nest of dry grass; but the eggs we have repeatedly taken from a hole in a bare decayed tree, and rotten wood.

WYNKERNEL.—A name for the Gallinule.

Yarwhip.

YAFFLER.—A name for the Poppinjay.

YARDKEEP, and YARWIP.—Names for the Yarwhip.

YARWHIP (*Limosa rufa*, Brisson.)

Limosa grisea major, *Briss.* 5. p. 272.—Scolopax Lapponica, *Linn.* Syst. 1. p. 246. 15.—*Gmel.* Syst. 2. p. 667.—*Lath.* Ind. Orn. 2. p. 718. 15.—Scolopax Belgica, *Gmel.* Syst. p. 663.—Limosa rufa, *Briss.* 5. p. 281. 5. t. 25. f. 1.—*Ib.* 8vo. 2. p. 281.—*Temm.* Man. d'Orn. 2. 668.—La Barge rousse, *Buff.* Ois. 7. p. 504.—Red Godwit, Br. Zool. 2. No. 181. t. 67.—*Ib.* fol. tab. add.—Arct. Zool. 2. No. 372.—*Edw.* t. 138.—*Lath*, Syn. 5. p. 142. 13.—*Lewin's* Br. Birds, 4. t. 160.—*Pult.* Cat. Dorset. p. 14.—*Walc.* Syn. 2. t. 140.—Red Breasted Snipe, *Mont.* Orn. Dict.—Bar-tailed Godwit, *Flem.* Br. Anim. p. 107.—Small Curlew, or Red-breasted Godwit, Linn. Trans. 1. p. 128.

Provincial.—Stone Plover. Yardkeep. Poor Wren.

This species is generally rather larger than the common godwit; weight about twelve ounces; length eighteen inches; the bill is full three inches and a half long, a trifle reflected; slender; dusky towards the point; the base yellowish flesh-colour; irides hazel; the head, neck, breast, back, and the top of the head, are streaked with dusky; the back and scapulars marked with large black spots or bars; from the bill to the eye a light coloured streak; the belly and under

tail coverts white; the sides under the wings barred with dusky; the smaller coverts of the wings, on the ridge, dusky; the next inclining to ferruginous; the larger ones cinereous-brown, light at the tips; greater quill-feathers black; shafts white; the outer webs slightly edged with white half way down; inner webs white at the base; the secondary quills dusky from their points, half way; base white; those next the body ferruginous, like the scapulars, barred with black; the rump and upper tail coverts white; the two middle feathers of the tail dusky black; the rest white half way from the base; ends black; legs near four inches long, and black; the thighs bare of feathers full an inch above the knee. In some, the breast is streaked with black; others mottled rufous and white; and the upper tail coverts barred with rufous and brown.

The specimen from which the above description is taken, was sent to us by some unknown friend: it was killed early in the autumn. It is a rare species in England, not frequently met with; and, we believe, never in summer. One we saw in Cornwall had the breast and neck of a bright ferruginous. The red-breasted snipe is a variety of this species. A specimen from Mr. Foljambe's museum, shot in May, 1812, and another shot in December, of the same year, on the Yorkshire coast, has the ferruginous margins of the feathers on the back and scapulars very pale, some almost white: the head and neck are paler than described in the former birds; but what is most interesting in this specimen is, that the ferruginous feathers of the breast are mixed with a few that are white, each having one or two transverse dusky bars; and upon lifting up the ferruginous feathers on the neck, a few white ones are discernible, with a dusky streak down the middle. This discovery indicates a change of which we were not before aware; and we now suspect those feathers to be the remains of the plumage of the young, previous to the first moult.

It is said to be plentiful in some parts of America; and is found in numbers in the fens about Hudson's Bay, where they breed, and retire southward.

YELDRIN, and YELDROCK.—Names for the Yellow Hammer.

YELLOW BIRD.—A name for the Golden Oriole.

YELLOW BUNTING.—A name for the Yellow Hammer.

YELLOW HAMMER (*Emberiza citrinella*, Linnæus.)

* Emberiza citrinella, *Linn.* Syst. 1. p. 309. 5.—*Gmel.* Syst. 1. p. 870. sp. 5.—*Lath.* Ind. Orn. 1. p. 400. sp. 7.—*Raii*, Syn. p. 93. A. 2.—*Will.* p. 196. t. 40.—*Flem.* Br. Anim. p. 77.—Emberiza flava, *Briss.* 3. p. 258. 1.—Le Bruant, *Buff.* Ois. 4. p. 342. t. 8.—*Ib.* pl. Enl. 30. f. 1.—Bruant jaune, *Temm.* Man. d'Orn. 1. p. 304.—Goldhammer, *Bechst.* Naturg. Deut. 3 p. 252.—*Meyer*,

Tasschenb. Deut. 1. p. 178.—*Ib.* Vög. Deut. 9. male and female.—*Frisch*, t. 5. A. and B.—Yellow Bunting, Br. Zool. No. 119. t. 50.—Arct. Zool. 2. p. 367. C.—*Albin*, 1. t. 66.—*Lewin's* Br. Birds, 2. t. 73.—*Lath.* Syn. 3. p. 170.—*Mont.* Orn. Dict. 1.—*Walc.* Syn. 2. t. 212.—*Bewick's* Br. Birds, 1. p. t. 143.—*Shaw's* Zool. 9. p. 351. t. 55. and 56. both figures incorrect copies.—*Selby*, pl. 52. f. 2. 3. p. 241.

Provincial.—Yoit. Yellow Yoldrin. Yellow Yowley. Yellow Yeldrock.*

The weight of this species is about seven drams; length six inches; bill dusky bluish; irides hazel; the crown of the head, throat, and belly, are of a beautiful bright yellow; the back part and sides of the head tinged with green; the breast, in some, is marked with reddish brown; quill-feathers dusky, the primores edged on their exterior webs with greenish yellow, the secondaries with rusty brown, those next the body, the greater coverts, and back, dusky, deeply margined with the same, the latter dashed with green; the rump and upper tail coverts tawny red; the tail a little forked, dusky, edged with greenish yellow; the two outer feathers marked with white on the exterior webs; legs yellow brown.

The female has much less yellow about the head, and the colours in general less vivid. The Yellow Hammer is subject to some variety in plumage. We have a specimen in which the whole head and neck is of a light yellow; some of the quill-feathers and scapulars white; and the under parts and rump pale yellow. The young birds have no yellow about them when first they leave the nest.

This is one of the most common indigenous birds of this country; if it were more rare, its beauty would be less disregarded. Its song, however, is as little attractive as that of the common bunting, possessing only a repetition of the same note five or six times successively, terminating in one more lengthened and shrill. In winter they assemble in flocks, with other granivorous birds, and pick up the scattered grain dispersed by the bountiful flail, and not by the master of the hoarded sheaves, who knows too well the value of his auriferous store. It does not breed till late in the spring. The nest is generally placed near the ground, in some low bush, or hedge. It is composed of straw and various dried stalks, and lined with fine dried grass, finished with long hair.

*Among several hundreds of these nests, with which I have been acquainted, I have rarely indeed seen "one placed in a low bush or hedge," but almost uniformly on the ground in a tuft of grass, or under the brow of a ditch-bank. I possess a specimen built in such a situation, very prettily basketted, with long grass leaves and stems, into the

form of an inverted cone, quite solid for about two inches, while the cavity of the nest, which is about two inches deep, only extends to half the perpendicular dimensions. The interior lining is frequently, in the nests of this species, woven with considerable art. Grahame's description is excellent.

> "Up from the ford, a little bank there was,
> With alder-copse and willow over grown,
> Now worn away by mining winter floods;
> There, at a bramble root sunk in the grass,
> The hidden prize of withered field straws formed,
> Well lined with many a coil of hair and moss,
> And in it laid five red-veined eggs, I found."[1] *

The eggs differ somewhat in colour and size; some are nearly white, others have a purplish hue, but are more or less marked with hair-like streaks, terminating with a roundish speck; the number from three to five, but usually four; their weight from thirty to forty-seven grains.

YELLOW-LEGGED GULL.—A name for the Herring Gull.

YELLOW-LEGGED SANDPIPER.—A name for the Young Ruff.

YELLOW PLOVER.—A name for the Golden Plover.

YELLOW WAGTAIL.—A name for the Winter Wagtail.

YELLOW WREN.—A name for the Haybird.

YELLOW YOLDRIN.—A name for the Yellow Hammer.

YUNX (Linnæus.)—* Wryneck, a genus of birds thus characterised. Bill short, straight, conical, and depressed; the ridge rounded; mandibles of equal length, sharp, and not notched; nostrils at the sides of the base, naked and partly closed by a membrane; tongue long, worm-shaped, and armed at the point with a horny substance; feet with two toes before, and two behind, the fore ones joined at their base; tail with ten soft and flexible feathers; wings of middle length, the first quill shorter than the second, which is the longest in the wing.*

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[1] Birds of Scotland, p. 28. Architecture of Birds. Chap. on Weaver Birds. p. 254.

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FINIS.

ERRATA.

Page 35, line 20, for *bone* read *lore*.
Page 298, line 35, for *Cursores otis*, read *Otis Tetrax*.
Page 189, cancel the whole article Gambet.

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